# Construction News

★Denotes work advertised in ENGINEERING NEWS.
✚Denotes contract awarded. The names of bidders awarded contracts are set in CAPITALS.

## PRICE CHANGES AND THE BUSINESS OUTLOOK

General improvement in trade has continued throughout the month of August with practically no diminution of volume in any line, and in many branches of industry, there has been a distinct quickening. In fact in so many varied endeavors has the improvement been marked, that it may be said to be general. It is of course less in evidence in the engineering and contracting field than in any other, for in these fields of large enterprises, things always move slowly.

Special activity is noted in the iron trade. The leading manufacturer of iron and steel is operating to 90% of capacity, some of the smaller companies are practically at a maximum. It is evident that the steel makers have entered on a period of prosperity, and from the number of orders booked for future delivery, and the premiums paid for prompt shipments, it is more than likely that this boom will continue for many months at least. An ambition program of steel mill construction and extensive improvement has started by manufacturers in and around the Youngstown district, and in the South, too, there is more activity. It is evident that some steps are being taken to bring to New York harbor some of the iron minufacturing of the country.

In the general trade there has been many lines of improvement which is encouraging. The market for securities showed a decided improvement, and as this is often taken as an indication of other improvements, the omen is considered a good one. Manufacturers of other lines of material report more business. The lumber trade shows a slight improvement. In the cement industry, the new prices seem full maintained.

New enterprises are springing up in all parts of the country. Efforts are being made to stimulate many lines of manufacture such as were never before thought of in this country, and should the manufacturers of Europe be so occupied with other affairs for another year or more, they will find a large part of their business controlled by United States manufacturers. It is especially noticeable that foreign trade in the United States is increasing by leaps and bounds, particularly export business. While a large share of this is to the belligerent nations in Europe, there is still enough business to South America and other parts of the globe where men are occupied in peaceful pursuits to indicate that American manufacturers are at last securing a fair foothold.

The outlook for crops is most excellent. A large wheat crop is already assured. Corn crops will also be satisfactory, and from present indications it is evident that the cotton crop will be large enough to cause some trouble in handling to the growers.

Buying by the railroads has been light. They have steadfastly kept out of the market, and even the more prosperous trunk lines are unwilling to make expenditures for improvements until it is determined just how far legislation is going to effect them.

Trade in munitions of war in all lines is especially active. The machine shops that make munitions and supplies for the warring nations have all the business they need.

Financial conditions were scarcely ever more satisfactory to American manufacturers, and the promotion of many American enterprises has been successful. There is a plethora of gold in the country to be used as a basis for obtaining credit, and the only difficulty seems to be that credit may be established more rapidly than actually needed. It is to be remarked in this connection, however, that the bankers seem disposed to put a curb on any but sound enterprises, and even these cannot be financed by borrowed money.

Construction of subways and rapid transit railway extensions in New York continue without any halt. The amount of labor necessary can be obtained. The supply of labor seems sufficient for all needs, and although there have been several strikes during the month, most of them have occurred in plants where munitions of war are being manufactured, and in places where, due to unusual circumstances, there was a great demand for labor. The general rough labor supply seems unusually large.

The metal trade suffered a severe reverse during the month, the price of copper being slightly reduced, spelter dropping down and other metals losing prices almost as fast as they gained in the early spring. Toward the end of the month, a steady demand was evident, and it seems likely that the low spot was reached during the last half of the month.

## CEMENT, LIME AND BRICK

**Portland Cement**—Business continues fairly active and there has been an increase in price. In New York to contractors it is now $1.57, including the charge for bags. For contractors the following prices are for cargo lots and include the usual charge for bags:

| | | | |
|---|---|---|---|
| Chicago | $1.56 | Boston | $1.72 |
| Detroit | 1.65 | Cleveland | 1.69 |
| Jersey City | 1.51 | Duluth | 1.86 |
| New York | 1.57 | Minneapolis | 1.83 |
| St. Paul | 1.83 | Pittsburgh | 1.56 |

**Brick**—The market shows firmness. There have been some labor troubles at Haverstraw but shipments continue as usual. The demand has strengthened and prices have increased. Quotations in New York are $5.75 to $6.

**Labor**—There seems to be an exceptional demand for unskilled labor for highway and railway work. Formerly a charge of $1.65 to $1.75 was made for such work, but now such men are scarce at $2. This is for a 10-hr. day. Due to the volume of work handled by the machine shops in this country, labor of this type is practically impossible to secure at from $3.50 to $4.50. Under ordinary conditions such could be had at from $2.50 to $3.50. There is scarcely any call for building laborers.

**Crushed Stone**—Among the principals in this field there seems to be a lot of price cutting. In fact, there is so much of this being done that dealers hesitate at quoting any price as firm. Bids on the Public Service contract calling for 300,000 yd. of ballast showed such a wide range of difference that as a result all bids were rejected. This contract is now being readvertised and bids will be opened on Sept. 10. In general, it may be said that business is fair. Quotations have been made as low as 60c. on several contracts. A rumor has been floating around to the effect that several of the larger companies were about to merge with the view of creating a more stable market.

## IRON AND STEEL

**Pig Iron**—A rapid increase in the demand not only for steel-making irons but for foundry irons was evidenced all through the month, and at the end premiums were paid for early deliveries of steel-making irons, manufacturers having refused to take orders for prompt shipments unless some business was included in it, and many of them refused to quote on any 1916 business. As an example, some of the manufacturers in the Birmingham district demanded as high as $12.50 for 1916 shipments. Not more than two months ago, No. 2 Southern Birmingham was selling at $9.50. Steel-making iron advanced just as rapidly. There is a very small accumulation of iron, and practically all the producing factories in the country are manufacturing iron, but in spite of this, consumption is more rapid than production. Prices are considerably higher than last month, and in lots of 100 tons and over prices are as follows: Cincinnati Southern Foundry No. 2, $13.90 to $14.40; Cincinnati Northern Foundry No. 2, $16.26 to $16.51; Cincinnati Northern Foundry No. 3, $15.01 to $15.26; New York Northern Foundry No. 2 plain, $15.25 to $15.50; New York Southern Foundry No. 2, $15.75 to $16; New York Northern Foundry No. 2, $15.50 to $15.75. In Chicago, Northern Foundry No. 2, $13.50 to $14; in Birmingham, Southern Foundry No. 2, $11 to $11.50. In Pittsburgh, bessemer iron is $16.45 and basic is $15.45. These quotations include the freight charge from the valley to the Pittsburgh district.

**Steel Rails**—Business is slack. Domestic demand is very small and the foreign demand is not anywhere up to the capacity of the country. Railroads have bought very sparingly, and there is little prospect that they will buy much more for this year's delivery. Improvements are being made in rolling-mill construction, and one of the subsidiaries of the United States Steel Corporation is building a mill which will be able to roll sections up to 150 lb. per yd. The Russian order was finally placed, and this calls for a thousand tons a day until the entire order of 75,000 tons is placed. Quotations are without change, and for lots of a thousand tons or over prices are as follows: Standard sections of bessemer are $28; openhearth, $30; both per gross ton f.o.b. Pittsburgh. Girder rails in 30-ft. lengths are $36.40 per ton; in 60-ft. lengths, $38.40 per gross ton, both f.o.b. New York. Other quotations f.o.b. Pittsburgh, for large lots, prices given in cents per lb., ars as follows: Standard sections, bessemer, 1.25c.; openhearth, 1.34c.; 20- to 30-lb., 1.125c.; 15- to 20-lb., 1.175c.; 12- and 14-lb., 1.225c.; 8- and 10-lb., 1.275c.

**Track Supplies**—The chief interest in the market for track supplies has been the Russian order for 75,000 kegs of spikes, which are slightly different from the ordinary American spikes, and so far the samples have not met the requirements of the engineers. It is evident, however, that they will be met. This buying has been sufficient to advance quotations. Spikes are now held at $1.60 per keg. Track bolts and square nuts are 1.90 to 2c., both in carload lots. Angle bars are quoted at the unchanged price of 1.50c., Chicago. These prices are given in cents per lb. Tie plates are $2 per ton higher and $28 per net ton f.o.b. the mill in the Chicago district.

**Structural Materials**—Business shows a gain. The Bridge Builders Society reports its operations as about 80% of the capacity of the American shops. A great deal of business has been taken during the last few months. There have been rush orders for mill building, and some of these have been fabricated with astonishing rapidity. Railroads are building some bridges, and there has been quite a little state and county work, but the heavy bridge building and the large office buildings have been conspicuous by their absence. Prices are a dollar per ton higher than last month, and are as follows: I-beams 3- to 15-in., channels 3- to 15-in., angles 3- to 6-in., T's 3-in. and over, are 1.30c. Cutting to specified lengths is charged at the following rates: 2 ft. to 3 ft. inclusive, 25c.; 2 ft. to 1 ft., 50c.; under 1 ft., $1.55. No charge is made for cutting to specified lengths above 3 ft. In Philadelphia, the base price is $1.51; in San Francisco, $2.15; in New York, $1.52. All of these quotations are per 100 lb.

**Plates**—The mills rolling plates have had considerable business for shipbuilding yards, but as yet there has been very little business booked by car manufacturers. Makers of riveted water pipe have also shown little disposition to come into the market. There seems to be every indication that the shipyard capacity of the country, especially on the Atlantic Coast, will be increased in the near future, and the manufacturers of plates are looking forward to the next session of

Congress with considerable interest, to say the least, in an endeavor to ascertain what the program of naval construction will be. Prices are higher, as follows: Minimum, Pittsburgh, $1.30. This is equivalent to $1.44 Chicago, $1.51 Philadelphia and $1.47 New York. The above quotations are per 100 lb.

**Pipe**—Prices hold fairly steady. The market for galvanied pipe has diminished slightly, resulting in an increased discount. For carload lots f.o.b. Pittsburgh, the discounts are as follows:

| | Black | Galvanized |
|---|---|---|
| ¾- to 2-in. steel, butt welded | 79% | 63½% |
| 2½- to 6-in. steel, lap welded | 78% | 62½% |
| 7- to 12-in. steel, lap welded | 76% | 58½% |

| Diameter | Cents Black | Cents Galvanized | Diameter | Cents Black | Cents Galvanized |
|---|---|---|---|---|---|
| ¾-in. | 2.43 | 4.19 | 5-in. | 32.56 | 55.50 |
| 1-in. | 3.57 | 6.20 | 6-in. | 42.24 | 72.00 |
| 1¼-in. | 4.83 | 8.39 | 7-in. | 57.12 | 98.77 |
| 1½-in. | 5.77 | 10.03 | 8-in. | 60.00 | $1.03 |
| 2-in. | 7.77 | 12.55 | 9-in. | 82.80 | 1.43 |
| 2½-in. | 12.87 | 21.93 | 10-in. | 98.99 | 1.70 |
| 3-in. | 16.83 | 28.68 | 11-in. | $1.11 | 1.92 |
| 4-in. | 23.98 | 40.87 | 12-in. | 1.21 | 2.10 |

**Cast-Iron Pipe**—The exceptional demand for pig iron has caused some concern among the pipe manufacturers and there is a hesitancy to quote on deliveries running into 1916. Although municipal contracts have not been so numerous, manufacturers are fairly busy. Prices are firm and $1 higher in some markets. In New York prices are steady, 6-in. pipe, Class B, being quoted at $23.50 to $24, Class A pipe $24.50 to $25; and the same price applies to gas pipe. In Birmingham quotations f.o.b. yard are as follows: 4-in., $21.50; 6-in. and upward, $19.50. Gas pipe is $1 per ton higher. In Chicago 4-in. pipe is $26; 6- to 12-in., $24; 15-in. and upward, $23.50.

**Old Materials**—Continued activity characterizes the market. Prices are still climbing upward, and some of the specialties have jumped as high as $2 to $2.25 per ton. Dealers in New York furnish quotations as follows:

| | Per Gross Ton |
|---|---|
| Heavy-melting steel scrap | $12.00 to $12.25 |
| Pipes and flues | 7.50 to 7.75 |
| No. 1 railroad wrought | 13.50 to 14.00 |
| Stove plate | 9.75 to 10.00 |
| No. 1 machinery cast | 12.75 to 13.00 |
| Wrought turnings | 7.50 to 7.75 |

In Chicago the advance in prices has been so decided and such rapid sales were made that it is believed that business in this line has about reached a turning point, and at present general conditions point to an easier market. The Steel Corporation has made a purchase of 10,000 tons of steel for its Duluth plant. Some of the railroads have made very large purchases of railroad scrap, and current quotations are $11.75 to $12.25. In the Chicago market quotations have made a decided advance over last month, as follows:

| | Per Gross Ton |
|---|---|
| Heavy-melting steel scrap | $11.75 to $12.25 |
| | **Per Net Ton** |
| No. 1 railroad wrought | $11.00 to $11.50 |
| No. 2 railroad wrought | 10.50 to 10.75 |
| No. 1 cash scrap | 10.00 to 10.50 |
| Pipes and flues | 8.75 to 9.25 |
| Agricultural malleable | 9.00 to 9.50 |
| Railroad malleable | 10.50 to 11.00 |

**Chain**—Prices are steady and without change, as follows. These prices are per 100 lb., f.o.b. Pittsburgh:

| | | | |
|---|---|---|---|
| ⅜ in. | $7.50 | ½ and ⅝ in. | $3.00 |
| ¼ in. | 4.95 | ⅝ and ¾ in. | 2.90 |
| 5/16 in. | 3.95 | ¾ and ⅞ in. | 2.80 |
| ⅜ in. | 3.40 | ⅞ and 1⅛ in. | 2.70 |
| 7/16 in. | 3.20 | 1 to 1¼ in. | 2.60 |

EXTRAS TO ABOVE LIST PER 100 POUNDS

| | For BB | For BBB |
|---|---|---|
| 5/16-in. and ¼-in. | $1.50 | $2.00 |
| 5/16-in. and larger | 1.25 | 1.75 |

**Wire Rope**—Business is good, but prices for galvanized rope are unchanged. Discount off list for galvanized is 40 and 5%; for bright it is 55 and 5; and special brands of bright are sold at 50 and 5. At the above discounts the net price of wire rope at the mills is as follows:

| Diameter in Inches | Price per Foot Cast Steel | Crucible Steel | Plow Steel |
|---|---|---|---|
| 2½ | $0.75 | $0.90 | $1.07 |
| 2¼ | 0.61 | 0.73 | 0.86 |
| 2 | 0.47 | 0.57 | 0.67 |
| 1¾ | 0.39 | 0.49 | 0.58 |
| 1½ | 0.28 | 0.34 | 0.40 |
| 1¼ | 0.20 | 0.24 | 0.27 |
| 1 | 0.13 | 0.15 | 0.18 |
| ¾ | 0.08 | 0.09 | 0.11 |
| ⅝ | 0.06 | 0.07 | 0.08 |

**Merchant Steel**—A number of small orders are cropping up and business shows an increase. In most of the following shapes there have been decided advances in price. The following are quotations from jobbers' store:

| | Cents Per Pound |
|---|---|
| **Refined Iron:** | |
| 1 to 1⅞ in., round and square | 1.85 |
| 1½ to 4 in. x ⅜ to 1 in. | 1.85 |
| 1½ to 4 in. x ¼ to 5/16 in. | 2.05 |
| Norway bars | 4.00 |
| Burdens bar iron | 3.15 |
| **Soft steel:** | |
| ¾ to 3 in., round and square | 2.05 |
| 1 to 6 in. x ⅜ to 1 in. | 2.05 |
| 1 to 6 in. x ¼ and 5/16 | 2.20 |
| Rods—⅝ and ½ in. | 2.15 |
| Bands—1½ to 6x5/16 in. to No. 8 | 2.35 |
| Beams and channels—3 to 15 in. | 2.10 |
| **Angles:** | |
| 3 in. x ¼ in. and larger | 2.10 |
| 3 in. x 5/16 in. and ⅛ in. | 2.25 |
| 1½ to 2¾ in. x 5/16 in. and thicker | 2.20 |
| 1½ to 2½ in. x ⅛ in. | 2.30 |
| 1 to 1¼ in. x ⅛ in. | 2.30 |
| 1 to 1¼ in. x ⅛ in. | 2.35 |
| **Tees:** | |
| 1½ to 2½x¼ in. | 2.25 |
| 1½ to 2½x5/16 in. | 2.35 |
| 3 in. and larger | 2.20 |

**Triangle Mesh**—Prices over last month remain unchanged, the following quotations, however, being approximate:

PRICE PER 100 SQ.FT.

| Style No. | Cross Sec. Area per Ft. Width | Plain Material—Carload Lots | Plain Material—Less Than Car Lots and Over 10,000 Sq.Ft. | Galvanized—Carload Lots | Galvanized—Less Than Car Lots and Over 10,000 Sq.Ft. |
|---|---|---|---|---|---|
| †4 | 0.102 | $1.00 | $1.23 | $1.12 | $1.34 |
| 5 | 0.077 | 0.80 | 0.97 | 0.89 | 1.00 |
| 6 | 0.058 | 0.63 | 0.77 | 0.71 | 0.84 |
| †7 | 0.041 | 0.49 | 0.60 | 0.55 | 0.66 |
| †23 | 0.170 | 1.69 | 2.05 | 1.88 | 2.24 |
| 24 | 0.142 | 1.46 | 1.77 | 1.62 | 1.93 |
| 25 | 0.124 | 1.29 | 1.57 | 1.43 | 1.71 |
| †26 | 0.110 | 1.17 | 1.42 | 1.30 | 1.55 |
| †27 | 0.085 | 0.96 | 1.17 | 1.07 | 1.28 |
| 28 | 0.066 | 0.80 | 0.97 | 0.89 | 1.06 |
| 29 | 0.049 | 0.66 | 0.80 | 0.73 | 0.87 |
| 31 | 0.261 | 2.49 | 3.02 | 2.76 | 3.29 |
| 32 | 0.225 | 2.16 | 2.62 | 2.40 | 2.86 |
| 33 | 0.196 | 1.93 | 2.34 | 2.14 | 2.55 |
| 34 | 0.140 | 1.48 | 1.80 | 1.64 | 1.96 |
| 35 | 0.109 | 1.17 | 1.42 | 1.30 | 1.55 |
| 36 | 0.075 | 0.87 | 1.05 | 0.97 | 1.15 |
| 38 | 0.380 | 3.55 | 4.30 | 3.93 | 4.68 |
| †39 | 0.325 | 3.05 | 3.70 | 3.38 | 4.03 |
| 40 | 0.283 | 2.68 | 3.25 | 2.97 | 3.54 |
| 41 | 0.208 | 2.05 | 2.48 | 2.27 | 2.70 |
| 42 | 0.151 | 1.55 | 1.88 | 1.72 | 2.05 |
| †43 | 0.101 | 1.10 | 1.34 | 1.23 | 1.46 |

†This material is made in regular widths of 18, 22, 26, 30, 34, 42, 46, 50, 54 and 58 in. Standard lengths of rolls are 150, 300 and 600 ft. Cutting to special length is charged extra.

**Bars, Concrete Reinforcing**—Although the demand for structural shapes is rather slack at the mills, the market is still very strong because of the number of orders for war supplies. In the Pittsburgh district there has been an exceptional volume of business for the warehouse men, and the price as a result has jumped. In New York no improvement is noticeable and the quotations remain the same as a month ago. Prices are as follows:

| Size | Cents per Pound—Mill Shipments, Pittsburgh | *Warehouse, Pittsburgh | Delivered from Warehouse, New York |
|---|---|---|---|
| ¾ in. and longer | 1.30 | 1.65 | 2.05 to 2.10 |
| ⅝ in. | 1.35 | 1.70 | 2.10 to 2.15 |
| ½ in. | 1.40 | 1.75 | 2.25 to 2.30 |
| ⅜ in. | 1.55 | 1.90 | 2.35 to 2.40 |
| ¼ in. | 1.80 | 2.15 | 2.70 to 2.75 |

*Bars from warehouse are cut to desired length without extra charge. These prices are for carload lots.

**Steel Sheet Piling**—Conditions are unchanged and prices remain steady at 1.55 to 1.60 per 100 lb. f.o.b. Pittsburgh.

**Freight Rates**—The freight rate on finished steel products in the Pittsburgh district, incuding plates, structural shapes, merchant steel, bars, pipe fittings, plain and galvanized wire nails, rivets, spikes, bolts, black sheets (except planished), chain, etc., are as follows in cents per 100 lb.; Boston, 18.9; Buffalo, 11.6; Baltimore, 15.4; Cleveland, 10.5; Cincinnati, 15.8; Chicago, 18.9; Denver, 68.6; New Orleans, 30c.; New York, 16.8; Philadelphia, 15.9; St. Louis, 23.6; Minnesota and St. Paul, 32.9. Pacific Coast (all rail), 80c

## CLAY PRODUCTS

**Flue Lining**—There has been no improvement in business over last month, and prices remain unchanged, with a discount of 80% off list. At this rate, prices are as follows:

FLUE LINING PRICE PER FOOT

| Size | Weight in Lb. | Price per Ft. | Size | Weight in Lb. | Price per Ft. |
|---|---|---|---|---|---|
| 4½x8½-in. | 14 | $0.07 | 8½x18-in. | 45 | $0.18 |
| 4½x13-in. | 20 | 0.09 | 13x13-in. | 45 | 0.17 |
| 7x7-in. | 15 | 0.08 | 13x18-in. | 57 | 0.24 |
| 8½x8½-in. | 18 | 0.09 | 18x18-in. | 75 | 0.40 |
| 8½x13-in. | 28 | 0.13 | | | |

**Sewer Pipe**—With the close of the summer season near at hand there seems to be an improvement in the demand for this material. However, the following discounts still remain effective: On 3 to 24 in., 82% off list; 27 to 30 in., 72%; 30 to 36 in., 67%. At these discounts, prices are as follows:

PRICE OF SEWER PIPE PER FOOT

| Size | | Size | |
|---|---|---|---|
| 3-in. | $0.045 | 18-in. | $0.342 |
| 4-in. | 0.045 | 20-in. | 0.405 |
| 5-in. | 0.072 | 22-in. | 0.54 |
| 6-in. | 0.072 | 24-in. | 0.585 |
| 8-in. | 0.099 | 27-in. | 1.26 |
| 10-in. | 0.144 | 30-in. | 1.54 |
| 12-in. | 0.18 | 33-in. | 2.06 |
| 15-in. | 0.243 | 36-in. | 2.31 |

## METALS

**Copper**—Dullness prevailed in the copper market during the greater part of the month. This condition was caused, no doubt, by the excessive production and the falling off in demand. Prices were pressed steadily during the greater portion of the month until the quotations for electrolytic reached 16c. For two months consumers neglected the market to such an extent that the price receded from over 21c. to 16c. During the last days of the month electrolytic copper advanced 18c. for both spot and 30 days delivered, but inquiry failed to reveal any great volume of business done at the high price. Numerous small transactions were reported, but most of the buyers were speculators. Some inquiries for round lots from domestic consumers were in evidence, but no large transactions were consummated. In some quarters it is intimated that the increase in price from 16c. to 18c. was a result of manipulation on the part of producers who have come to the conclusion that the metal must be supported until production can be curtailed.

**Tin**—While fluctuations in the tin market during August were not marked, in general the tendency towards lower quotations showed a strong undertone. In some quarters improvement in the demand for both spot and future metal is expected, it being felt that the August statistics will show a smaller visible supply with heavier deliveries into consumption. Arrivals into this market during August amounted to 3841 tons and stocks afloat for ports in the United States amount to 4439 tons. The price of tin at the beginning of the month was 35c. and at the close the quotation was the same, although during the interval prices had been as low as 33¼c.

**Lead**—Until late in the month prices for lead were steadily downward. The month opened with a market quotation of 5.75c., but by the middle of the month prices were depressed to 4.5c. per pound. Buying was limited to small quantities and producers failing to observe renewed orders from foreign sources and manufacturers of war munitions began throwing stock on the market. Consumers did not evince much interest even at the lower prices until well towards the end of the month, when an abrupt change took place and prices advanced rapidly to 4.75c. Consumers became interested as usual when prices advanced, and while production is reported to be in excess of the demand it is felt among sellers that the surplus will be easily absorbed.

**Spelter**—There was a steady decline in spelter during the entire month until the last week, when quotations were advanced sharply. The spot price at the beginning of the month was 19c. and the decline continued until 11c. was the ruling basis for trading. However, during the last week of the month a fairly good demand brought an upward turn and the market closed strong at 15c. The impression prevailed that a short interest had attempted to cover and found extreme difficulty without paying advancing prices. But this element did not account for all of the rise, and no doubt consumers and speculators contributed their share in the change of prices and sentiment.

**Old Metals**—During the month old metals have been strong and fairly active. The selling prices are quoted approximately as follows, in cents per pound:

| | |
|---|---|
| Copper, heavy cut and crucible | 15⅞ |
| Coper, heavy and wire | 15⅜ |
| Copper, light and bottoms | 14⅛ |
| Heavy machinery composition | 12⅝ |
| Brass, heavy | 10¼ |
| Brass, light | 9½ |
| No. 1 clean brass turnings | 13¾ |
| No. 1 composition turnings | 11⅜ |
| Lead, heavy | 4¾ |
| Tea lead | 4 |
| Zinc scrap | 11⅜ |

## MISCELLANEOUS

**Swedish (Norway) Iron**—The market at present is practically exhausted. Efforts are being made by some of the dealers to pick up any small lots obtainable, but with little success.

**Asphaltum**—Through the South and Middle West there has been a considerable amount of business. One of the leading interests has started a new plant in Louisiana to aid in supplying these sections. Due to the increased volume of work and the strong demand for Mexican asphalt petroleum, the price has been increasing. At present sheet paving asphalt per ton in packages f.o.b. refinery is quoted at $13 to $15.

**Blue Stone**—Dealers were able to maintain the same prices during the month, due to the fact that production was decreased. Some of them cut a cent or two on the present prices, but the following are fairly steady: Bronx flagging sells at 17c. per sq.ft. and Manhattan, 18c. per sq.ft. Curbing 5x16 in. sells at 40c. per lin.ft., 5x20 in., at 45c.; sewer bottoms 5x5 ft. by 3 in. at 25c. per sq.ft.; Belgian bridging 5x24 in., 65c., per lin. ft.

**Railway Ties**—One of the larger interests closed contracts with two or three of the principal roads, and it is now believed that conditions have reached the turning point and business will improve. There have been a number of European inquiries received but few orders are coming from the other side. Freight rates are still high, which tends to hold prices at about the following level: First-class standard ties 7x9 in. by 8 ft. 6 in. sell at 73c.; 6x8 in. by 8 ft. at 61c., these prices being f.o.b. New York.

## CATALOG NOTICES

Templeton, Kenly & Co., Ltd., 1020 South Central Ave., Chicago, Ill. Bulletin Catalog No. 115. Simplex jacks. Illustrated, 24 pp., 6x9 in.

Chicago Pneumatic Tool Co., Fisher Building, Chicago, Ill. Bulletin No. 130. Lubrication of Pneumatic Tools. Illustrated, 8 pp., 6x9 in.

Burd High Compression Ring Co., Rockford, Ill. Directory of piston ring sizes for trucks, tractors, engines, etc. Illustrated, 134 pp., 4½x7 in.

Studebaker Corp., South Bend, Ind. Catalog No. 1005. Bottom dump wagons and dump boxes. Illustrated, 32 pp., 5x8 in.

Kaustine Co., Inc., Ellicott Square, Buffalo, N. Y. Catalog. Kaustine private sewage disposal systems. Illustrated, 16 pp., 6x9 in.

Sweet's Steel Co., Williamsport, Penn. Catalog. Light and heavy steel tee rails, angle bars, concrete reinforcing bars, etc. Illustrated, 10x12 in.

The Globe Iron Roofing & Corrugating Co., Cincinnati, Ohio. Catalog H. Sheet metal building materials. Illustrated, 166 pp., 7x10 in.

The Raymond W. Dull Co., Chicago, Ill. Catalog. Sand and gravel washing plants. Illustrated, 80 pp., 7x10 in.

American Pulverizer Co., East St. Louis, Ill. Catalog No. 21. Pulverizers, air separators. Illustrated, 12 pp., 3½x9 in.

Berlin Mills Co., Portland, Maine. Pamphlet. "Structural Wood and its Preservation from Decay." Illustrated, 26 pp., 6x9 in.

J. W. Fiske Iron Works, 78-80 Park Place, New York. Catalog. Wrought iron railing entrance gates, wire fencing. Illustrated, 64 pp., 8x10½ in.

Lea-Courtney Co., Newark, N. J. Catalog H-2. Centrifugal pumps. Illustrated, 64 pp., 6x9 in.

Cornell Iron Works, 26th St. & 11th Ave., New York. Catalog. Rolling steel shutters. Illustrated, 16 pp., 6x9 in.

The Emerson Pump & Valve Co., Alexandria, Va. Catalog. Steam pumps. Illustrated, 79 pp., 6¼x9½ in.

Templeton, Kenly & Co., Ltd., 1020 South Central Ave., Chicago, Ill. Catalog. Simplex Jacks. Illustrated, 23 pages, 6x9 in.

## INDUSTRIAL NOTES

**Charles B. Burger**, Principal Assistant Engineer to George W. Fuller, Consulting Engineer, 170 Broadway, New York, has resigned to accept a position as Consulting Engineer with the Atlantic Refining Co., Philadelphia, Penn.

**The Keuffel & Esser Co.,** Hoboken, N. J., has been awarded the Grand Prizes at the Panama Pacific International Exposition, for its exhibit of drawing materials, slide rules, surveying instruments, telescopic sights and periscopes.

**The Pacific Tank & Pipe Co.,** Portland, Ore., has changed its name to the National Tank & Pipe Co. The personnel of the new corporation remains the same, and the business policy of the company will be directed along the same lines as it has been during the past.

**Arthur M. Torrey,** formerly with the soliciting department of Hildreth & Co., recently resigned to take charge of the Engineering Contract Department of W. S. Barstow & Co., 50 Pine St., New York.

**The Virginia Bridge & Iron Co.,** Roanoke, Va., has opened a branch office in the First National Bank Bldg., Denver, Colo. A. R. Peyton, who has been associated with this company for some years as Contracting Engineer, will be in charge.

**The Duff Mfg. Co.,** Pittsburgh, Penn., is building an extension 125x150 ft. to its main factory. A five-ton bridge transfer crane and monorail conveying system is also being installed.

**The New Process Gear Corporation** has recently acquired the plant of the Monarch Typewriter Co., Syracuse, N. Y. Alterations to this plant will be made so as to devote its use to the manufacture of automobile differentials. C. G. Meachem is Vice-Pres.

**The Nelson-Blank Mfg. Co.,** manufacturing machinist, Clay and Dubois St., Detroit, Mich., has consolidated with the American Pattern Works. The new concern will continue in the manufacture of wood and metal patterns, the Nelson Two Spindle Adjustable Drill Head, and will also machine all kinds of automobile parts. Joseph F. Buhr is Mgr., and Arne T. Nelson is Supt.

## RAILWAYS—STEAM AND ELECTRIC

**Massachusetts**—Worcester Consolidated St. Ry.—This company has applied to the City Council for a franchise to relocate its track on Main St., Westborough. H. C. Page, Worcester, is Gen. Mgr.

**New York, N. Y.**—(Borough of Brooklyn)—Brooklyn Rapid Transit Co.—According to press reports this company has been granted a franchise to construct a two-track street railway on Atlantic Ave. from Flatbush Ave. to Shepherd Ave., about five miles. A connection will be made with the existing tracks at Atlantic and Fifth Ave.

**New Jersey**—Public Service Ry.—This company will construct a railway from Port Reading Junction to Carteret, via Chrome. The proposed line will connect with the Newark-Perth Amboy Fast Line. R. E. Danforth, Newark, is Gen. Mgr.

**Maryland**—Cumberland Valley R.R.—According to press reports this company plans to expend approximately $1,000,000 for the improvement of its line in Hagerstown. T. B. Kennedy, Chambersburg, Penn., is Engr. Noted Mar. 25.

**Maryland**—Mayor Preston has presented a plan to the City Planning Commission for a municipal electric belt railway connecting with the lines of the Pennsylvania, Baltimore & Ohio, Western Maryland and Maryland & Pennsylvania R.R. in Baltimore, also for a new Union Station at the Fallsway and Biddle St. and a tunnel system. William H. Maltbie and Daniel B. Banks are interested.

**West Virginia**—Kanawha Valley Traction Co.—This company has applied to the City Council for a franchise to double track its line on Murdock Ave., Parkersburg. S. Miller Gallaher, Charleston, W. Va., is Pur. Agt. and Ch. Engr.

**West Virginia**—Monongahela Traction Co.—This company contemplates the construction of an extension from Fairmont to Glenville. S. B. Miller, Fairmont, is Ch. Engr.

**North Carolina**—Central Carolina R. R.—Surveys are being made by this company for the construction of a railway from Lillington to Swansboro, N. C., about 125 miles. W. J. Edwards, Sanford, N. C., and J. R. Baggett, Lillington, N. C., are interested. Noted Sept. 3.

**South Carolina**—Southern Ry.—Bids will be received until Sept. 3 by W. H. Wells, Ch. Engr., Washington, D. C., for double tracking this company's line from Greenville to Greer, S. C., about 26 miles. Noted Aug. 26.

**Alabama**—L. Beck Musgrove and associates, Jasper, Ala., are interested in a project to construct an interurban railway from Jasper to Birmingham, via Ensley, about 35 miles.

**Mississippi**—Meriden & Gulf R.R.—This company plans to construct a railway from Columbus to Okolona, Miss., thence to Aliceville, Ala. G. A. Heard, Brooksville, Miss., is interested.

**Louisiana**—Alexandria Electric Ry.—This company has been sold to the city for $30,000, which plans to improve and extend the line.

**Tennessee**—Morgan-Fentress Ry.—This company will, according to press reports, extend its line from Harriman beyond the Obed River, about 10 miles. T. H. Enright, Harriman, is Vice-Pres. and Gen. Mgr.

**Tennessee**—Nashville & Eastern R.R.—Preliminary surveys are being made by this company for the construction of an electric railway from Nashville to Smithville, about 55 miles. Charles Edwards, Smithville, is interested. Noted Aug. 5 and Aug. 26.

**Ohio**—Columbus Ry., Power & Light Co.—This company plans to relay its tracks on Long and Main St., Columbus. Harold W. Clapp, Columbus, is Gen. Supt.

**Ohio**—Lake Shore Electric Ry. Co.—This company plans to double track its line on West Erie Ave. between Ashland Ave. and the city limits in Lorain. L. K. Burge, Sandusky, is Gen. Supt.

✚**Ohio**—Cleveland & Ohio Central Electric Ry.—This company, recently incorporated, has awarded a contract for the first 55 miles of its proposed railway from Cleveland to Wooster, Ohio, to the LATHROP-SHEA & HENWOOD CO., Buffalo, N. Y. Noted Aug. 26.

**Ohio**—The Tiffin Chamber of Commerce has been asked to raise a bond issue of $2000 toward the cost of making a preliminary survey for the proposed electric railway between Tiffin and Bucyrus, Ohio. A. W. Nyquist is interested.

**Indiana**—Evansville & New Harmony Traction Co.—Press reports state that this company will soon start work on the construction of its proposed electric railway from Evansville to New Harmony, Ind., about 30 miles. C. J. Siebert, Evansville, is Gen. Mgr. Noted July 15.

**Wisconsin**—A. E. Appleyard, Ashland, is interested in the construction of an electric railway from Ashland to Bayfield, Wis.

**Kansas**—Kansas City Southern Ry.—This company has been granted a 20-year franchise for trackage rights by the Kansas City Commission for which the company agrees to replace its low pier bridge across the Kaw River with a new two-pier high-line bridge and to pay part of the cost of viaducts for eliminating the grade crossings at Fifth, Seventh and 12th St. C. E. Johnston, Kansas City, is Ch. Engr.

**Kansas**—Newton, Kansas & Nebraska R.R.—This company will, according to press reports, soon start work on the construction of its proposed railway from Newton through Harvey, McPherson, Dickinson, Saline, Clay and Washington Counties, about 142 miles. S. O. Waddell, Newton, is Ch. Engr. Noted July 15.

**South Dakota**—Yankton & Northern Ry.—This company has been incorporated to construct a railway from Yankton to Watertown, S. D., about 145 miles. E. S. Johnson, W. J. Gantle and W. E. Heaton, all of Yankton, are the incorporators.

**Wyoming**—The Popsia Coal Co., Hudson, plans to construct a railway from Shoshone to the northwestern coal fields. H. O. Barber is Mgr.

**Montana**—Press reports state that North Country farmers and the American Society of Equity contemplate the construction of an electric railway from Opheim to Nashua, Mont., to gain a more efficient means of transportation to the line of the Great Northern Ry.

**Texas**—Crosbyton-South Plains R.R.—This company, it is reported, has been taken over by the Santa Fé System, which plans to extend same. A. B. Spencer, Crosbyton, is Gen. Mgr.

**Texas**—Rio Grande Ry.—This company has agreed to convert the railway which runs between Brownsville and Point Isabel, a distance of 22 miles, into a standard-gage line and to make other improvements including the operation of an electric street railway in Brownsville and the dredging of a deep-water channel to connect with the outer deep water of the gulf, provided a bonus of $75,000 is raised toward the proposed work. The entire cost of the project is $400,000. John J. Harden is Chn. of the Bonus Com.

**Oklahoma**—Tulsa Traction Co.—This company, recently incorporated, will take over the Union Traction Co. and construct an extension to Sapulpa, about 15 miles. Plans are also being considered for an extension to Okmulgee, via Bixby, about 35 miles. A. J. Biddison, I. F. Crow, G. C. Stebbins, W. E. Bennett and J. S. Pearce, all of Tulsa, are the incorporators.

**Washington**—Washington Electric Ry.—This company has secured a right-of-way about 15 miles southeast of Chehalis, in Lewis County, where it plans to construct an electric railway. H. C. Coffman, Chehalis, is Pres. and Gen. Mgr.

**Ontario**—The Hydro-Electric Power Commission is having surveys made for the construction of a railway from Hamilton to Port Dover and other points on Lake Erie. F. Gaby, Toronto, is Ch. Engr.

## LIGHT, HEAT AND POWER

**Binghamton, N. Y.**—The City Council has authorized the sale of $148,000 in bonds, the proceeds of which will be used for the construction of a municipal electric-light and power plant. D. W. Foster is City Clk.

✚**Syracuse, N. Y.**—The Globe Malleable Iron Works, 108 Greenway Ave., has awarded the contract for a 34x52-ft., one-story power house to the W. J. BURNS CO., Syracuse, at $4000.

**Millville, N. J.**—The City Commissioners have passed a resolution to ask for bids for the installation of a municipal electric-light plant. Plans for the proposed plant have been approved. N. B. Wade is City Engr.

**Tarentum, Penn.**—The Borough Council has authorized the expenditure of $21,000 for improvements to the municipal electric-light plant. Sidney B. Martin, Penn Bldg., Pittsburgh, is Engr.-in-Charge.

**Baltimore, Md.**—It is reported that plans are being considered for the establishment of a municipal electric-light plant, power to be obtained from Jones Falls. The estimated cost is $200,000. Ezra B. Whitman, Fidelity Bldg., is Consult. Engr.

**Baltimore, Md.**—The Bartlett-Hayward Co. will build a one-story boiler house and power building at Scott and Ramsay St. to cost about $4000. The building will be fireproof, 43x62-ft. Motors of 5000-hp. capacity will be installed, while the boilers will aggregate 1000 hp.

✚**Nebo, N. C.**—The Morganton Light & Power Co., Morganton, N. C., has awarded the contract for the construction of a dam across the Catawba River at a point near Nebo to the ELLIOTT BUILDING CO., Hickory, N. C., at about $110,000.

**Anniston, Ala.**—The City Council has granted a franchise to the Alabama Power Co. to extend its gas mains to Oxford, a distance of three miles. Estimated cost, $11,000. The company is also extending its mains to Blue Mountain, a suburb, at a cost of $5000. A. L. Kenyon is Mgr.

**Hazard, Ky.**—The Kentucky River Power Co., recently organized, will build a power plant, to cost $300,000, to develop about 5000 hp. to serve the coal-mining district of the state. A 25-mile transmission system, costing $25,000, will be constructed. R. L. Cornell, Hazard, is Mgr. and Engr. Noted Aug. 26.

✚**Akron, Ohio**—The Falls Rubber Co. has awarded the contract for the construction of a power house to the AKRON STORAGE & CONTRACTINC CO., at about $5000.

**Batavia, Ohio**—It is reported that the Village Council has decided to close down the municipal generating station, and will purchase energy for operating the municipal system from the Cincinnati, Georgetown & Portsmouth Traction Co., Cincinnati.

**Northfield, Ohio**—An election will be held Sept. 20 to vote on the question of issuing $12,000 in bonds, the proceeds of which will be used for the installation of a municipal electric-light system in Northfield.

**LaFayette, Ind.**—The General Service Co. will shortly begin the construction of a condensing plant to cost about $150,000 at present, and about $300,000 when fully equipped. One 2500-kw. unit will be installed at once, and the building will have an ultimate capacity of 10,000 kw. Thomas Donohue is Mgr. and Ch. Engr.

✚**Dowagiac, Mich.**—The Board of Public Works has awarded the contract for a new generator and switchboard for the municipal electric-light plant to the WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburgh, Penn., at $5725.

**Kalamazoo, Mich.**—An election will be held Sept. 7 to submit to the voters the question of issuing $350,000 in bonds for extensions and improvements to the municipal electric-light plant. Clarence L. Miller is City Clk.

**Lakefield, Minn.**—(Official)—See item under "Water Supply—Irrigation."

**Waseca, Minn.**—It is reported that the installation of a gas plant in Waseca, to cost between $65,000 and $75,000, is under consideration.

✚**Haviland, Kan.**—The contract for constructing and equipping an electric-light plant has been awarded to the F. D. MARTIN CONSTRUCTION CO., Rialto Bldg., Kansas City, Mo., at $4295. E. T. Archer & Co., New England Bldg., Kansas City, Mo., is Engr.-in-Charge. Noted July 29.

**South Haven, Kan.**—It is reported that the South Haven Electric Light Co. will soon install a new generating unit, and will purchase a 25-hp. oil engine, one 30-kw. generator and exciter. J. R. Britton is Mgr.

**Edgar, Neb.**—Bids will be received until 1 p.m., Sept. 3, by the Mayor and City Council for the construction of a municipal-electric light plant, including some electrical material, construction of pole line, and adapting the city pump and well to electric drive. The estimated cost is $6000. W. J. Breckenridge is City Clk.

**Willow Lake, S. D.**—B. H. Lamont, Willow Lake, contemplates the establishment of an electric-lighting system to serve Clark County. A 24-hr. service will be furnished.

**✚Knobnoster, Mo.**—It is reported that the Johnson County Light & Power Co., recently incorporated, has awarded the contract for the construction of a $10,000 electric-light plant to the STANDARD ENGINEERING CO., Kansas City. J. J. Freundlich, 509 Republic Bldg., Kansas City, is Official-in-Charge.

**Corning, Ark.**—George A. Booser, owner of the local electric-light plant, is considering changing the system from direct to alternating-current, and building transmission lines to Success and Datto.

**✚Denton, Tex.**—The contract for the construction of a power plant for the College of Industrial Arts has been awarded to J. F. JOHNSON at $7500.

**✚Huntsville, Tex.**—The contract for heating and plumbing equipment in the Sam Houston Normal School has been awarded to KENNISON BROS., at $28,473.

**✚San Marcos, Tex.**—The contract for heating and plumbing equipment in the Southwest Texas Normal School has been awarded to DONNELLY & WHITE, at $40,798.

**Lewiston, Idaho**—The Lewiston Commercial Club is considering a plan to build a dam and power plant on either the Snake or the Clearwater River, to furnish energy for lighting and other purposes. Robert S. Erb is Pres. of the Commercial Club.

**Stanwood, Wash.**—The City Council has granted a franchise to George W. Kunze, Arlington, for furnishing electricity to the town for a period of 50 years. It is reported that Mr. Kunze will purchase the local plant, owned by C. A. Query, at $12,250, and will establish a lumber mill to be driven by electricity.

**✚Portland, Ore.**—The contract for installing heating and ventilating equipment in the Franklin High School has been awarded to J. F. SHEA, at $22,928. Noted July 29.

**Eureka, Calif.**—It is reported that the Western States Gas & Electric Co. will spend $12,000 in enlarging its plants in Humboldt County. H. L. Jackman, Eureka, is Mgr. and Cont. Agt.

**Merced, Calif.**—It is reported that the San Joaquin Light & Power Co., Fresno, will build a $65,000 substation at Merced. H. H. Adams is Local Mgr. and Gen. Supt. at Merced.

**Ontario, Calif.**—The Ontario-Upland Gas Co. will enlarge its plant and lay new mains at an estimated cost of $20,000.

**Liverpool, N. S.**—T. R. Bartling, Town Engr., has been authorized to prepare plans and call for bids at once for improvements to the municipal electric-light plant to cost about $15,000.

## BRIDGES

**Manchester, N. H.**—Plans for the new bridge at South Elm St. will soon be completed. Its cost, about $75,000, will be divided as follows: The city will pay $40,000, the Boston & Maine R.R., $24,000, and the Manchester St. Ry., $12,000. S. J. Lord is City Engr. Noted July 15.

**✚Lawrence, Mass.**—(Official)—Bids were received Aug. 16 by the Commissioners of Essex County for rebuilding the Loring St. Bridge over the Shawsheen River, Lawrence, from the following: Hyde Park Construction Co., Boston, $13,-714; William Francis Fitzgibbon, Beverly, $15,784; Hynes Construction Co., Wales, $16,929; LAWLER BROS., Charlestown, $20,051 (awarded contract); Michiel L. Camarco, Lee, $22,656; William L. Miller Co., Boston, $22,769; W. N. Pike & Sons, Lawrence, $22,149 (unsigned bid). Noted Aug. 5.

**Bristol, Conn.**—Plans are being prepared by Carleton W. Buell, City Engr., for a steel bridge over the Pequabuck River on Broad St.

**★Westport, Conn.**—(Official)—Bids will be received until 2 p.m., Sept. 22, by the State Highway Commissioner, Capitol, Hartford, for the construction of a single-leaf deck lift bridge over the channel of the Saugatuck River, Westport, and for electrical equipment necessary to operate the bridge. C. J. Bennett is State Highway Comr.

**Elizabeth, N. J.**—Bids will be received until Sept. 7 by the Board of Chosen Freeholders of Union County for the construction of two bridges, one on the Lower Rd., Rahway, and the other on Hussa St., Linden.

**Bangor, Penn.**—(Official)—Bids will be received until 10 a.m., Sept. 17, by George F. P. Young, Controller of Northampton County, Easton, for the construction of a reinforced-concrete bridge over Martin's Creek in the Borough of Bangor, known as County Bridge No. 48.

**Halifax, Penn.**—The State Water Supply Commission has approved the application of the Pennsylvania R.R. for permission to build a bridge over Armstrong Creek near Halifax. A. C. Shand, Philadelphia, is Ch. Engr.

**Jenkintown, Penn.**—Plans are being prepared for a new bridge over the tracks of the Philadelphia & Reading Ry. on Switchville St., Jenkintown. It will be a 110-ft. steel span. The estimated cost is $40,000. John N. Jacobs, Norristown, is Controller of Montgomery County.

**✚Johnsonburg, Penn.**—The Town Council has awarded the contract for the construction of a reinforced-concrete bridge over the East Branch of the Clarion River to HARRY KOONS, Johnsonburg, at $6300.

**✚Pittsburgh, Penn.**—(Official)—The Commissioners of Allegheny County have awarded the contract for repairs to approaches and floor of Bridge No. 6 over the Youghiogheny River, to C. W. HAGGART, 323 Fourth Ave., Pittsburgh, at $18,425. Noted Aug. 12.

**Uniontown, Penn.**—Bids will be received until noon, Sept. 28, by Harry Kisinger, Controller of Fayette County, Uniontown, and by the Controller of Westmoreland County, Greensburg, for the construction of a plate girder bridge with concrete substructure and floor, over Jacobs Creek at West Overton, between the two counties.

**Courtland, Va.**—(Official)—The Board of Supervisors of Southampton County announces that it is not in a position to build the proposed Cary Bridge over the Nottaway River at present, and the advertisement for bids to be received until Sept. 3 has been recalled. Noted Aug. 26.

**Richmond, Va.**—Press reports state that the Administrative Board has directed the City Engineer to prepare plans for the construction of a bridge over Grace St. from Taylor's Hill (22d St.) to Memorial Hospital. The cost is tentatively estimated at $250,000. Charles E. Bolling is City Engr.

**Keyser, W. Va.**—Bids will be received until Sept. 14 by J. V. Bell, Clk. of Mineral County, for the construction of two reinforced-concrete bridges, one 30-ft. span over Georges Run, and one 50-ft. span over Beaver Run, both with 14-ft. roadways.

**✚Athens, Ga.**—The Commissioners of Clarke County have awarded the contract for repairing the Princeton Bridge to the EAST ST. LOUIS BRIDGE CO., East St. Louis, Ill., at $4357. Noted July 15.

**✚Dalton, Ga.**—(Official)—Bids will be received until 1:30 p.m., Sept. 11, by H. J. Wood, Ordinary and Chn. of County Bd. of Whitfield County, for the construction of a reinforced-concrete bridge across Coahulla Creek. It will have one 80-ft. and one 25-ft. span. Noted Aug. 19.

**Jesup, Ga.**—(Official)—Plans will be completed about Sept. 10 for the construction of a bridge across the Altamaha River between Wayne and Liberty Counties. Ira M. Raybon, Jesup, is Clk. Bd. of Comrs. of Wayne County. Noted Aug. 19.

**Macon, Ga.**—It is reported that the Central of Georgia Ry. will build a concrete viaduct on Plum St. between Fifth and Sixth St., to cost about $75,000. The work will be done in connection with the new union passenger station at the foot of Cherry St. J. M. Fitzgerald, Macon, is Supvr. of Bridges and Bldgs., Central of Georgia Ry.

**✚Johnsonville, Tenn.**—The Nashville, Chattanooga & St. Louis Ry. has awarded the contract for a new steel drawbridge over the Tennessee River in Johnsonville, to H. M. GOULD, Nashville.

**Lancaster, Ky.**—The Fiscal Court of Garrard County has voted to build a bridge across White Creek in the Point Lick section.

**Akron, Ohio**—Bids will be received until Sept. 17 by the Board of Commissioners of Summit County for the construction of the substructure of the Gichrist Bridge in Springfield Township. C. L. Bower is Clk. of Comrs.

**Ashland, Ohio**—(Official)—Bids will be received until noon, Sept. 17, by the Board of Commissioners of Ashland County for the construction and repair of five county bridges. H. C. Westover is County Audr. B. Welty is Clk. of Comrs.

**Cleveland, Ohio**—Bids will be received until noon, Sept. 16, by the Commissioner of Purchases and Supplies, Room 511, City Hall, for foundations, approaches and structural steel work for the Union Ave. grade crossing. Robert Hoffman is City Engr.

**Dayton, Ohio**—The Directors of the Miami Conservancy District have approved the plans of the Pennsylvania R.R. for a bridge over the Miami River replacing the one washed away by the flood of 1913. It will cost about $300,000. The Big Four and the Cincinnati, Hamilton & Dayton lines will also use the bridge.

**✚Marysville, Ohio**—The Board of Commissioners of Union County has awarded bridge contracts to the CAPITOL CONSTRUCTION CO., Columbus, at $4676 for the Ford Bridge, and to the BELLEFONTAINE BRIDGE & IRON CO., Bellefontaine, at $3197 for the Jones Bridge.

**Warren, Ohio**—Bids will be received until Sept. 13, by the Board of Commissioners of Trumbull County for the construction of the Griswold St. Bridge, Warren. W. R. Harrington is County Audr.

**Brownstown, Ind.**—(Official)—Bids will be received until Sept. 7 by the Commissioners of Jackson County for the construction of nine bridges. Albert Leudtke is Audr.

**Corydon, Ind.**—(Official)—Bids will be received until 2 p.m., Sept. 7, by the Commissioners of Harrison County for the construction of three steel bridges. J. L. O'Bannon is Audr.

**Crawfordsville, Ind.**—(Official)—Bids will be received until 10 a.m., Sept. 7, by the Commissioners of Montgomery County for the construction of several bridges. B. B. Engle is Audr.

**✚Crown Point, Ind.**—It is reported that the contract for the construction of a concrete bridge on the Lincoln Highway in Lake County has been awarded to the ENGINEERING CONSTRUCTION CO., 106 North LaSalle St., Chicago, Ill., at $10,990.

**Danville, Ind.**—(Official)—Bids will be received until 10 a.m., Sept. 11, by the Commissioners of Hendricks County for the construction of five bridges and the repair of others. L. W. Borders is Audr.

**Hartford City, Ind.**—(Official)—Bids will be received until 2 p.m., Sept. 6, by the Commissioners of Blackford County for the construction of two concrete bridges. J. L. McGeath is Audr.

**Hartford City, Ind.**—The City Council plans the construction of two new bridges over Little Lick Creek at Jefferson St. and Spring St., estimated to cost $4000 and $2000 respectively.

**Indianapolis, Ind.**—Bids will be received until 10 a.m., Sept. 3, by the Board of Park Commissioners for the construction of a trestle over Pleasant Run at Michigan St.

**Peru, Ind.**—(Official)—Bids will be received until noon, Sept. 8, by the Commissioners of Miami County for the construction of a concrete bridge in Richland Township. F. K. McElheny is Audr.

**Rensselaer, Ind.**—(Official)—Bids will be received until 2 p.m., Sept. 7, by the Commissioners of Jasper County for the construction of several bridges. J. P. Hammond is Audr.

**✚Richmond, Ind.**—(Official)—The Board of Commissioners of Wayne County has awarded the contract for the construction of four bridges to ISAAC E. SMITH, Richmond, at $23,000 for the four. The work includes the North 12th St. Bridge in the City of Richmond; the Short Creek Bridge; the Centerville Bridge and the McConaha Bridge. Noted Aug. 19.

**Warsaw, Ind.**—(Official)—Bids will be received until 10 a.m., Sept. 9, by the Commissioners of Kosciusko County for the construction of nine bridges. V. D. Mock is Audr.

**Lansing, Mich.**—Under the terms of the new trunk line highway law, passed by the last legislature, the State Highway Commission will spend about $80,000 this year for constructing new bridges. Frank F. Rogers is State Highway Comr.

**Richland Center, Wis.**—Plans are being prepared by H. A. Abbott, Div. Engr., State Highway Comn., for three steel bridges with concrete floors and abutments, 40-, 60- and 80-ft. spans respectively, in Richland Center. R. Sutt is City Clk.

**Brainerd, Minn.**—Bids will be received until 2 p.m., Sept. 7, by C. W. Mahlum, Audr. of Crow Wing County, for a bridge over the Pine River to consist of three 30-ft. spans on reinforced-concrete abutments; also for the construction of two reinforced-concrete bridges.

**✚Crookston, Minn.**—The Commissioners of Polk County have awarded contracts for the construction of 14 steel bridges in various townships to GRUND & NORDQUIST, Pitt, Minn., at $19,991.

**Mankato, Minn.**—It is reported that the city of Mankato has retained Donald Price, Omaha, Neb., to prepare plans for a reinforced-concrete bridge across the Minnesota River at Mankato. It will be about 560 ft. long, and the cost must not exceed $80,000. J. H. A. Brahtz, Consult. Engr., St. Paul, will supervise the construction work.

**✚Wadena, Minn.**—(Official)—The Commissioners of Wadena County have awarded the contract for the construction of State Bridge No. 1551 to the MINNEAPOLIS BRIDGE CO., Minneapolis, at $4875. Other bidders were: Hennepin Bridge Co., $5376; Great Northern Bridge Co., $5350; Illinois Steel Bridge Co., $4950; Plymouth Construction & Repair Co., $5660. Noted Aug. 12.

**✚Girard, Kan.**—(Official)—The Commissioners of Crawford County have awarded contracts for the construction of four steel girder bridges to the CONCRETE STEEL & CONSTRUCTION CO., Joplin, Mo., at $3510, and for one concrete bridge to the TOPEKA BRIDGE & IRON CO., Topeka, at $1060. Noted Aug. 12.

**Kansas City, Kan.**—It is reported that plans prepared by R. L. McAlpine, County Engr. of Wyandotte County, for a single-deck bridge with 27-ft. roadway and double car tracks over the Kaw River on Central Ave., were not approved by the War Department. New plans will be prepared by Harrington, Howard & Ash, Consult. Engr., Orear-Leslie Bldg., Kansas City, Mo. The estimated cost is $450,000, to be divided between Wyandotte County and the Metropolitan St. Ry. Co., Kansas City, Mo. Noted May 27 and July 8.

**✚Mound City, Kan.**—The Board of Commissioners of Linn County has awarded the contract for the construction of four bridges to the TOPEKA BRIDGE & IRON CO., Topeka, at $9925.

**✚Topeka, Kan.**—The city has awarded the contract for the construction of a bridge across Shunganunga Creek on Lincoln St. to ALLEN & FULTON, Topeka, at $11,524. Other bidders were: Fred Luttjohann, $11,900, and the Topeka Bridge Co., $13,850. Noted July 8.

**✚Fremont, Neb.**—(Official)—The Commissioners of Dodge County have awarded the contract for all county bridge construction for a period of one year to the STANDARD BRIDGE CO., Omaha. Five other bids were received. Noted Aug. 12.

**✚Medora, N. D.**—The National Park Transcontinental Highway Association has awarded the contract for the construction of a bridge over the Little Missouri River at Medora to the ILLINOIS STEEL BRIDGE CO. at $17,000, including approaches and riprapping. Noted May 13 and Aug. 12.

**Kansas City, Mo.**—It is reported that bids will be received about Sept. 14 by the Board of Park Commissioners for the construction of a reinforced-concrete viaduct at 77th St. and the Paseo. The estimated cost is between $40,000 and $50,000. Harrington, Howard & Ash, Orear-Leslie Bldg., Kansas City, is Engr.-in-Charge. Noted Feb. 4.

**Perryville, Mo.**—Bids will be received until Sept. 7 by Thomas J. Killian, Road and Bridge Comr. of Perry County, for the construction of a steel bridge with wood floor and stone or concrete abutments and a steel bridge with concrete floor and abutments.

**Dallas, Tex.**—It is reported that plans are being prepared by the Stone & Webster Engineering Corporation, Boston, Mass., for a viaduct between Dallas and Oak Cliff. The estimated cost is $50,000. J. M. Preston is City Engr.

**✚Menard, Tex.**—The Commissioners Court of Menard County has awarded the contract for the construction of two low-water bridges across the San Saba River to AUSTIN BROS., Dallas, at $6550.

**Lawton, Okla.**—(Official)—Bids will be asked in about 60 days by the Commissioners of Comanche County for the construction of county bridges to cost about $5000. S. A. Joyner is County Engr. Noted Aug. 19.

**Mt. Vernon, Wash.**—The Commissioners of Pierce County plan to build an 80-ft. Howe truss span bridge across Diasbud Creek on State Rd. No. 11. The work will be done by county forces from plans prepared by A. L. Strong, County Engr.

**✚Berkeley, Calif.**—The City Council has awarded the contract for the construction of a bridge across Cordornices Creek to D. McDONALD at $5675. Noted July 22 and Aug. 19.

**Oroville, Calif.**—Bids will be received until Sept. 11 by the Board of Supervisors of Butte County for the construction of a number of county bridges. The estimated cost is $14,400. C. M. Polk is County Surv.

**✚Placerville, Calif.**—The Board of Supervisors of Eldorado County has awarded the contract for the construction of a bridge across the South Fork of the American River to BLUXOME & CO., Monadnock Bldg., San Francisco, at $11,470, including a macadam covering on the floor, or $11,250 without the macadam. Noted Aug. 5.

**Rail Road Flat, Calif.**—The Supervisors of Calaveras County, San Andreas, have approved plans for a 670-ft. steel bridge across the Moklumne River at Rail Road Flat.

**Red Bluff, Calif.**—The Board of Supervisors of Tehama County will soon ask bids for the construction of a reinforced-concrete bridge across Mill Creek in Los Molinos Colony.

**✚Visalia, Calif.**—The Board of Supervisors of Tulare County has awarded the contract for a bridge over Kings River to the TURNER CO., Los Angeles, at $14,333. Other biders were: Boardman Construction Co., $17,019; Johnson Bros., $15,680; Settelwell Co., $23,000; Mesmeyer Co., $17,752; Mercereau Bridge & Construction Co., $18,681; C. E. Cotton, $17,469; Manning Bros., $21,400; Parlier Construction Co., $14,336; Munoz & Munoz, $18,998; California Construction Co., $15,700. Noted Aug. 5.

**Halifax, N. S.**—(Official)—Bids will be received until noon, Sept. 11, by E. H. Armstrong, Comr. Pub. Wks. and Mines, for the construction of 174 culverts of permanent material on several roads.

## WATER SUPPLY—IRRIGATION

**Madison, Maine**—The purchase of the property rights and franchises of the Madison Water Co. is being considered by the city.

**Boston, Mass.**—Bids will be received until Sept. 9 by the Public Works Department for laying 11,500 ft. of 10- and 12-in. water mains in several streets in East Boston. Edward F. Murphy is Comr.

**Boston, Mass.**—The Commissioner of Public Works plans to construct a high pressure fire service pumping station at Dorchester Ave. and Summer St.

**Hartford, Conn.**—Bonds for $10,000 have been sold. The proceeds will be used toward the construction of the Nepaug water system. Noted Aug. 12 and 26.

**New Britain, Conn.**—Plans are being prepared by William H. Hall, City Engr., for the construction of the Burlington Reservoir. Noted Mar. 25.

**Windsor, Conn.**—(Official)—Bids were received Aug. 20 for the construction of a water system as follows: Antonio Lambo, Waterbury, $34,560; A. D. Ambrosio, Hartford, $34,704; Sussi & Williams, Boston, Mass., $35,872; Bernardino & Tomassetti Construction Co., Meriden, $39,069; A. W. Byrne, Hartford, $39,166; Abbott & Bowes, Cohoes, N. Y., $39,623; Hanson Construction Co., Boston, Mass., $40,455; Louis D. Gregory, New York, $40,813; Cordener & Montague, Springfield, Mass., $41,405; T. F. Foley Co., South Norwalk, $42,374; Piersen Engineering & Construction Co., Hartford, $42,671; Way & Collilli, Springfield, Mass., $43,633; F. N. Lewis, New York, $46,412; Daly & Merritt, Portchester, N. Y., $47,163; Middlesex Contracting Co., Franklin, Mass., $48,581. H. R. Turner is Supt. of Water Wks. Noted Aug. 5.

**Hudson Falls, N. Y.**—Charles E. Perry, Consult. Engr., Albany, who was retained by the village to estimate the cost of a water system has made the following report: Three pond conduit, $6453, intake reservoir, $8501, conduit, $77,485, distributing system, $78,932, fire hydrants, gate valves, and other valves, $27,500. The total estimated cost is $270,000.

**★Manchester, N. Y.**—(Official)—Bids will be received until Sept. 15 by the Board of Village Trustees, for constructing a water system. Noted May 27 and June 17.

**✚North Collins, N. Y.**—The contract for the construction of a water system has been awarded to SHIPMAN & LINCOLN, Gowanda. Bonds for $35,000 have been voted for this purpose.

**✚✚Watervliet, N. Y.**—Contracts have been awarded by the Board of Water Commissioners for constructing the municipal water system as follows: Section No. 1, storage reservoir, dam and pumping station to N. R. PORTERFIELD, New York; Section No. 2, supply main and service reservoir to LINCOLN, STEELE FLEMING CO., New York; Section No. 3, filtration plant to AMERICAN WATER SOFTENER CO., Philadelphia, Penn., and Section No. 4, distribution system to BEAVER ENGINEERING & CONTRACTING CO., New York. The total amount of contract is $418,000. Noted July 22 and Aug. 26.

**✚✚Wellsville, N. Y.**—(Official)—Bids were received Aug. 25 for making improvements to the water system as follows: JAMES H. HAVENS, Olean, at $39,588 for piping and $36,027 for constructing a reservoir (awarded contract); Suburban Construction Co., New York, $83,474; J. F. Calahan, Jamestown, $41,087; A. M. Scoerson, Erie, Penn., $36,900; J. D Kieher, $49,500 and Knight & Sayre, Wellsville, $40,981. Charles C. Hopkins is Engr. Noted July 29.

**Cranford, N. J.**—The Township Committee contemplates the construction of a water system. The estimated cost is $300,000.

**Long Branch, N. J.**—Morris R. Sherrerd, Newark, who was retained by the City Commission to estimate the cost of constructing a municipal water system, has reported that a system can be installed at an estimated cost of $500,000.

**Newark, N. J.**—Bids will be received until 2:30 p.m., Sept. 3, by the Committee on Public Buildings of the Common Council of the City of Newark, City Hall, for the construction of a water supply system at the almshouse at Ivy Hill. The George W. Knight Co. is Engr. A. Archibald is City Clk. Noted Aug. 26.

**✚Newark, N. J.**—The contract has been awarded to JOHN L. REID, Newark, at $11,555, by the Board of Chosen Freeholders of Essex County for drilling a well and for pumps, compressors at the new county hospital at Overbrook.

**Brownsville, Penn.**—(Official)—The State Board of Health has approved the plans for the construction of a filtration plant in South Brownsville. Noted July 22.

**Media, Penn.**—The bond issue of $70,000 which was recently voted for the improvement of the water system has been declared illegal. Another election will be held in November. Noted June 17 and 24.

**Reynoldsville, Penn.**—An election will soon be held to vote on the question of issuing $100,000 in bonds, the proceeds of which will be used for the purchase of the Reynoldsville Water Co.

**Ayden, N. C.**—At a recent election the citizens voted in favor of issuing $50,000 in bonds. Part of the proceeds will be used for the construction of a water system.

**Lumberton, N. C.**—Bids will soon be received by A. E. White, Mayor, for the installation of a filtration plant at the municipal water system. The estimated cost is $10,000. Gilbert C. White, Consult. Engr., Charlotte, has prepared the plans. Noted Dec. 3 and Aug. 19.

**✚Warrenton, N. C.**—The contract for the construction of a water system has been awarded to M. M. WILKES, Atlanta, Ga. Bonds for $50,000 have been sold for this purpose. Gilbert C. White, Charlotte, is Engr. Noted June 17 and July 22.

**Macon, Ga.**—According to press reports the Water Commissioners contemplate an expenditure of $10,000 for the improvement of the distilling plant at the Riverside Station.

**Coolidge, Fla.**—At a recent election the citizens voted in favor of issuing bonds, the proceeds of which will be used for the construction of a water system. S. C. Neswith is City Clk. Noted July 29.

**Pass Christian, Miss.**—X. A. Kramer, Consult. Engr., Magnolia, Miss., has been retained to make a survey and prepare plans for the construction of a water system. Estimated cost, $10,000.

**Philadelphia, Miss.**—Plans are being prepared by M. L. Culley, Engr., Jackson, for the construction of a water system. Noted June 24.

**White Castle, La.**—On Aug 19 the citizens voted in favor of issuing $25,000 in bonds, the proceeds of which will be used for the construction of a water system and electric-light plant. X. V. Kramer, Magnolia, Miss., is Engr. Noted Aug. 22.

**Lenoir City, Tenn.**—At a recent election the citizens voted against the question of issuing $10,000 in bonds, the proceeds of which was to have been used for the completion of the water system. Noted Aug. 26.

**Brewster, Ohio**—(Official)—The only complete bid received for the construction of a municipal water system was that of David Eshelman & Son, Anderson, Ind., at $23,333. The W. H. Sherman Co., Toledo, is Engr. Noted Feb. 4 and Aug. 12.

**✚✚Cambridge, Ohio**—(Official)—The contract has been awarded to C. P. O'REILLY, St. Louis, Mo., and the PITT CONSTRUCTION CO., Pittsburgh, Penn., for making improvements at the water system. Noted July 22.

**✚Maumee, Ohio**—The contract has been awarded to T. C. BROOKE & SON, Jackson, Mich., at $49,753, for constructing a water system. Noted July 23.

**Medina, Ohio**—(Official)—Bids will be received until Sept. 15 by the Board of Public Affairs for furnishing 12,336 ft. of 4-in. pipe, 37 4-in. valves, 15 hydrants and 6800 lb. of specials. B. E. Elkard is City Clk.

**Middletown, Ohio**—S. G. Pollard, Cincinnati, is preparing plans for the construction of a water system. Bonds for $120,000 have been voted for this purpose. Noted Aug. 19.

**Tiffin, Ohio**—According to press reports plans have been prepared for the enlargement of the water system. O. E. Williams, Boston, Mass., is Pres. Tiffin Water Wks. Co. Noted June 24.

**West Park, Ohio**—Bids will be received until noon, Sept. 13, by M. J. Spooner, Clk., Bd. of Pub. Affairs, for constructing water mains in nine streets.

**Bloomington, Ill.**—The Commercial Club of Bloomington has filed a petition with the Public Service Commission to make a survey of the water system and to have plans prepared for the needed improvements. Elmer Folsom is City Engr.

**✚Clinton, Ill.**—The contract has been awarded to the DAVIS EWING CONCRETE CO., Bloomington, at $6644, for constructing a reservoir.

**Fairbury, Ill.**—Plans are being prepared for the construction of a well at the water works. The proposed well will have a depth of 1000 to 2000 ft. of 20-in. pipe. T. W. Burns is Supt. of Water Wks.

**Wheaton, Ill.**—The construction of a new steel standpipe on a site higher than the present one is under consideration. L. J. Ruddock is City Engr.

**Manitowoc, Wis.**—(Official)—Plans have not yet been completed for the installation of two pumps at the water works. William Miller is City Clk. Noted Aug. 19.

**Monticello, Wis.**—Bids will be received until Sept. 7 by H. O. Babler, Village Clk., for the construction of 2300 ft. of 6-in. water main.

**Oshkosh, Wis.**—Bids will be received until 2 p.m., Sept. 7, by the Board of Public Works, for laying 2600 ft. of 2-in. and 1200 ft. of 1¼-in. water pipe in the new cemetery. R. A. Hollister is Chn. of Bd. Noted Aug. 5 and 26.

**Dubuque, Iowa**—The Water Department plans to lay about 1800 ft. of water mains on Broadway from Diagonal to Putnam St. B. F. Stedman is Supt. of Water Wks.

**✚Lakefield, Minn.**—(Official)—The contract has been awarded to the STERLING ELECTRIC CO. and the DES MOINES BRIDGE & IRON WORKS, at $26,325 and $4105 respectively for making improvements to the water and electric-light systems. E. Anderson is City Clk. Noted July 15.

**Minneapolis, Minn.**—The Water Works Commission has authorized the laying of 31,762 ft. of 6-in., 5838 ft. of 8-in. and 6058 ft. of 12-in. water pipe. The estimated cost is $75,142. William R. Young is Water Wks. Supt.

**Attica, Kan.**—Bonds for $30,000 have been voted by the citizens, the proceeds of which will be used for the construction of water and electric-light systems. Noted July 29.

**✚Milligan, Neb.**—(Official)—The contract has been awarded to F. B. BENTLEY, Geneva, at $5463, for constructing a water system. E. J. Kotes is City Clk. Noted Aug. 19.

**Whitehall, Mont.**—(Official)—Bids will be received until Sept. 23 by F. E. McCall, Town Clk., for constructing water and sewer systems.

**Macon, Mo.**—(Official)—Bids will be received until 1 p.m., Sept. 14, by J. L. Martin, City Clk., for making improvements to the water system. Noted Aug. 12.

**Heber Springs, Ark.**—According to press reports the city will construct water and sewerage systems. The estimated cost is $80,000. B. R. Brown is Recdr.

**✚Caddo, Okla.**—(Official)—The contract for the construction of a pumping station and filtration plant has been awarded to F. W. KEENEY, Oklahoma Bldg., Oklahoma City, at $20,000. The work will include two 8x10-in. triplex pumps, two 4-in. centrifugal pumps, two 50-hp. oil engines, one gravity filter with a daily capacity of 250,000 gal., power house, settling basin and clear water well. Noted Aug. 12.

**Pauls Valley, Okla.**—An election will soon be held to vote on the question of issuing $16,000 in bonds, the proceeds of which will be used for the extension of the water system.

**Myton, Utah**—(Official)—Bids will be received until Sept. 29 by R. B. Crois, Town Clk., for constructing a water system.

**✚Salt Lake City, Utah**—The contract for the construction of the high line canal in Division No. 9 of the Strawberry Valley Irrigation project has been awarded to HEUSER, SIM & VORKINK, Salt Lake City, at $35,504.

**Everett, Wash.**—At an election held Aug. 24 the citizens voted in favor of the question of issuing $1,700,000 in bonds. Part of the proceeds will be used for the construction of a pipe line to carry the waters of Sultan basin to the city limits, about 24 miles, and for the purchase of the present water works.

**Olympia, Wash.**—A recent decision of the Supreme Court has rendered illegal the $90,000 bond issue recently voted for the purchase of the local water plant. Noted Mar. 11 and May 6.

**Ridgefield, Wash.**—Bonds for $10,000 have been voted by the citizens, the proceeds of which will be used for the construction of a municipal water system.

**Wenatchee, Wash.**—Press reports state that an election will be held Sept. 11 to vote on the question of issuing $500,000 in bonds. The proceeds will be used for the construction of a new irrigation system and for the improvement of the old one.

**Halfway, Ore.**—Bonds for $20,000 have been voted by the citizens. The proceeds will be used for the construction of a gravity water system. Noted Aug. 12.

**Hood River, Ore.**—An election will be held Sept. 7 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for the construction of an irrigation system near the Hood River.

**Roseburg, Ore.**—The City Council will be petitioned to issue $250,000 in bonds, the proceeds of which will be used for the construction of water and electric-light systems.

**Venator, Ore.**—Surveys have been made by George Waggoner, Eugene, for the construction of a water system.

**✚San Francisco, Calif.**—The contract has been awarded by the Spring Valley Water Co. to JAMES H. O'BRIEN & GEORGE A. BOS, at $5250, for concrete work at the Lake Honds reservoir.

**Stockton, Calif.**—An election will be held Oct. 16 to vote on the question of the formation of the West Side Irrigation District. The proposed district plans to irrigate 11,000 acres at an estimated cost of $285,000.

**Quebec, Que.**—Bids will be received until noon, Sept. 7, by O. Lefebvre, Ch. Engr., of the Quebec Streams Commission, Parliament Bldg., for constructing a storage dam at the outlet of Lake St. Francis.

## SEWERS

**Haverhill, Mass.**—The city will construct sewers in various streets. Estimated cost, $5000.

**Lawrence, Mass.**—The City Council has authorized an expenditure of $30,000 for the construction of sewers.

**✚Woonsocket, R. I.**—(Official)—The contract for the construction of approximately 4400 ft. of 8-in. and 500 ft. of 15-in. sewers and appurtenances has been awarded to the EASTERN CONSTRUCTION CO., Woonsocket. Noted Aug. 19.

**✚Hockanum, Conn.**—(Official)—The contract for the construction of 9300 ft. of 12-, 10- and 8-in. sewers has been awarded to A. D'AMBROSIO, Hartford, at $8060. Other bids were: Skeketoff & Roger, $8652; D. O'Connor, $8907; A. W. Bryns, $8942; A. Lambo, $10,540; Bonadies & Monocchio Co., $13,593. Noted Aug. 5.

**Lakeville, Conn.**—Preliminary plans are being prepared by Virgil Ehle for the construction of a sewer system. The estimated cost is $43,000.

**★Buffalo, N. Y.**—(Official)—The lowest bid received for the renewal of sewer lines at the Buffalo State Hospital was that of Kelly & Wheeler, 537 Norwood Ave., Buffalo, at $6295. E. S. Elwood is Secy. State Hospital Comn. Noted Aug. 19.

**East Syracuse, N. Y.**—At a recent election the citizens defeated the question of issuing $36,000 in bonds, the proceeds of which was to have been used for the construction of sewers and a sewage-disposal plant.

**New York, N. Y.**—(Borough of Brooklyn)—(Official)—Bids were received Aug. 25 by L. H. Pounds, Borough Pres., for the construction of sewers in (a) Clara St., (b) Kenmore Pl., (c) 54th St., (d) East 26th St., (e) Dumont Ave., (f) Roch-

erter Ave., from Frank Spinella, (a) 89%, (b) 93%, (c) 90%, (d) 95%; F. L. Pelligrino, (a) 85.32%, (e) 83.97%, (f) 116.5%; S. Pacone & Sons, 969 20th St., Brooklyn, (a) 80%, (b) 74%, (c) 76.50%, (d) 66%, (e) 70%; Bigeleo Contracting Co., (a) 123.75%, (c) 135%; B. Pacone & Sons. (a) 79%, (b) 99%, (c) 90%, (d) 62%, (e) 100%, (f) 145%; Joseph Jennings, (a) 90%, (b) 106%, (c) 95.12%, (d) 88.72%, (e) 92.20%, (f) 164%; F. Merrindino, Inc., 556 17th St., Brooklyn, (a) 88.44%, (b) 80%, (c) 83.40%, (d) 80%, (f) 92%; Murphy Bros., (a) 93.3%, (b) 97%, (c) 97%, (d) 92%; Backus & Gelardi, (a) 81%, (b) 93%, (c) 86%, (d) 80%, (e) 98%, (f) 111%; Egelardi Contracting Co., (a) 83%, (b) 125%, (c) 83%, (e) 150%, (f) 150%. Noted Aug. 19.

**New York, N. Y.**—(Borough of Brooklyn)—(Official)—Bids will be received by L. H. Pounds, Borough Pres., Borough Hall, until 11 a.m., Sept. 8, for the construction of sewers in various streets.

**New York, N. Y.**—(Borough of Manhattan)—(Official)—Bids will be received by Marcus M. Marks, Borough Pres., Municipal Bldg., until 2 p.m., Sept. 9, for the construction of a sewer in Ellwood St. between Nagle and Sherman Ave.

**New York, N. Y.**—(Borough of Richmond)—(Official)—Bids will be received by Calvin D. Van Name, Borough Pres., Borough Hall, St. George, until noon, Sept. 7, for the construction of a sewage-disposal plant at the Richmond County Jail.

**✚★Oswego, N. Y.**—(Official)—Contracts for sewer construction have been awarded as follows: BRODERICK & FINGERHUT, at $1734, for Tallman, Niagara and West Second St. sewer; SAMUEL BONN, Syracuse, at $7872, for West Albany St. sewer; L. TREMITI, at $2853, for East Mohawk, Duer, Bonner, Hamilton and East Eighth St. sewers; RALPH RELLY, Utica, at $8792, for West Oneida and Dublin St. sewer, and at $14,764, for West Mohawk, Singleton and Liberty St. sewer. Noted Aug. 19.

**Linden, N. J.**—Bids will be received until Sept. 20 by the city for the construction of a sewer system in Elizabeth, Ziegler and Maple Ave., and in Roselle, Price and 13th St.

**Newark, N. J.**—Bids were received Aug. 26 by the Board of Street and Water Commissioners for the construction of Section No. 1 of the Meadowbrook Outlet Sewer from Matteo Ronaldo, $7554; Donato Fusco, $5275; Cardell & Romano, $10,060; Averill-Matthews Co., $9730; Peter D'Amato, $10,385; M. Stefanelli, $10,028. Noted Aug. 19.

**Prospect Park, N. J.**—(Paterson post office)—Plans have been prepared by Harold J. Harder, Engr., for the construction of a sewage-disposal plant. Noted June 10.

**Pittsburgh, Penn.**—The city contemplates the construction of a surface water sewer in the Five Mile Run drainage basin and the improvement of sewers in the Saw Mill Run. The estimated cost is $201,000 and $150,000 respectively.

**Wilmington, Del.**—Bonds for $50,000 have been sold, the proceeds of which will be used for the construction of sewers along Brandywine Creek from Henry Clay. Noted July 15.

**Huntington, W. Va.**—Bids will be received until Sept. 6 for the construction of sewers in various streets. O. H. Wells is Engr.

**Ayden, N. C.**—At a recent election the citizens voted to issue $15,000 in bonds, the proceeds of which will be used for the construction of sewers. Noted Aug. 12.

**Raeford, N. C.**—The citizens voted to issue $30,000 in bonds, the proceeds of which will be used for the construction of sewer and water systems. Noted Aug. 26.

**Macon, Ga.**—Plans have been prepared by J. J. Gaillard, City Engr., for the construction of sewers to take the place of the old Vineville branch.

**✚Ft. Myers, Fla.**—The contract for the construction of approximately 1½ miles of sewers has been awarded to the SOUTHERN CLAY MFG. CO., Chattanooga, Tenn.

**✚Cloverdale, Ala.**—The contract for the construction of a sewer system has been awarded to SULLIVAN, LONG & HAGERTY CO., Bessemer, Ala. The estimated cost is $30,000. Noted Aug. 12.

**Philadelphia, Miss.**—Plans are being prepared by M. L. Cully, Engr., Jackson, for the construction of a sewer system.

**Hammond, La.**—Bids will be received until Sept. 4 for the construction of a sewer system. The estimated cost is $40,000. X. A. Kramer, Magnolia, Miss., is Consult. Engr. Noted July 15.

**Louisville, Ky.**—An election will be held in November to vote on the question of issuing $350,000 in bonds. The proceeds will be used for the construction of sewer system and a sewage-disposal plant.

**Owensboro, Ky.**—(Official)—The Council has not appropriated $6000 for the construction of a sewer in the Old Ravine on West Second St. as was noted in the issue of Aug. 26. H. M. Talboth is City Engr.

**Bowling Green, Ohio**—Plans are being prepared for the construction of a sewage-disposal plant.

**✚Cincinnati, Ohio**—(Official)—The contract for the construction of the Pogue Ave. sewer has been awarded to RUNCK BROS., at $6040. Noted Aug. 19.

**✚Cincinnati, Ohio**—(Official)—The contract for the construction of sewers in McDowell, Strafer St. and in Columbia Ave. has been awarded to M. J. McCARTHY, Cincinnati, at $4865. Noted Aug. 5.

**Cleveland, Ohio**—(Official)—Bids were received Aug. 18 by the Commissioner of Purchases and Supplies for the construction of a concrete open channel outfall sewer approximately 630 ft. long and a submerged outfall pipe line about 3600 ft. long, from: Great Lakes Dredge & Dock Co., $95,671; American Construction Co., $109,985; Merritt & Chapman Derrick & Wrecking Co., $125,513; Charles Fath & Co., $125,915; Cleveland Engineering & Construction Co., $137,230. Noted Aug. 5.

**Cleveland, Ohio**—(Official)—Bids were received Aug. 19 by Robert Hoffman, City Engr., for the construction of sewers in various streets from: Manson Construction Co., $67,272; John Wagner, $71,847; W. P. Gibbons, $75,025; Hoag & Zullo, $78,036; Central Ohio Construction Co., $80,436. Noted Aug. 19.

**Cleveland, Ohio**—Bids will be received until noon, Sept. 9, by the Commissioner of Purchases and Supplies for the construction of sewers in West 110th St. from Lorain to Overlook Ave.; Parkhurst Drive from Bosworth Rd. to West 110th St.; Overlook Ave. from West 110th St. to Bosworth Rd.; storm sewer in Bulkley Blvd. from West 25th to West 28th St. Robert Hoffman is City Engr.

**Hillsboro, Ohio**—It is reported that plans are being prepared by H. L. Maddocks, Newark, for the construction of a sewer system and a sewage-disposal plant.

**Mansfield, Ohio**—(Official)—Bids will be received about Oct. 15 by Secretary of the Board of Control for the construction of additions to the sewage-disposal plant. The estimated cost is $110,000. W. J. Hazeltine is City Engr. Noted Aug. 19.

**Indianapolis, Ind.**—Preliminary plans are being prepared for the construction of a sewage-disposal plant. The estimated cost is $1,500,000.

**Princeton, Ind.**—Bids will be received about Sept. 13 for the construction of a sanitary sewer system.

**✚South Range, Mich.**—The contract for the construction of a sewer system has been awarded to HALL & LABBY, at $6900. Noted Apr. 29.

**✚Berwyn, Ill.**—(Official)—The contract for the construction of sewers in various streets has been awarded to T. H. IGLEHART, Chicago, at $5878. Noted Aug. 12.

**Salem, Ill.**—(Official)—Bids will be received in about 90 days for the construction of a sanitary sewer system. The Caldwell Engineering Co., Jacksonville, is Engr. Noted Aug. 19.

**Springfield, Ill.**—Wade Seeley, City Engr., estimates the cost of constructing a branch sewer and a sewage treatment plant at $120,000.

**Appleton, Wis.**—(Official)—Bids will be received until 9 a.m., Sept. 23, by the City Clerk for the construction of approximately 2300 ft. of 66- and 72-in. sewers of vitrified segment block or concrete in tunnel. A. C. Bemley is City Engr. Noted Aug. 26.

**✚Madison, Wis.**—(Official)—Contracts for sewer construction have been awarded to WEBER & GAY, at $28,865, 20-in. force mains; J. F. ICKE, at $24,700, interceptor; J. W. MITCHELL, at $12,100, pumping station.

**★Milwaukee, Wis.**—(Official)—Bids will be received until 10:30 a.m., Sept. 17, by Fred G. Simmons, Comr. of Pub. Wks, for the construction of the Lake St. sewer including the tunnel section, all shafts, manholes and the outfall section.

**Racine, Wis.**—Plans have been prepared by the Board of Public Works and submitted to the Council for extending the outlets of the English and 16th St. sewers into the lake such a distance that the outlets shall be submerged. The estimated cost is $10,000 and $5680 respectively. Noted May 20.

**Randolph, Wis.**—Plans have been prepared by W. S. Shields, Chicago, Ill., for the construction of a sanitary sewer system.

**Keokuk, Iowa**—Bids will be received until Sept. 9 by J. F. Winters, City Engr., for the construction of a sewer system.

**Waterloo, Iowa**—Plans are being prepared for the construction of a sewer system across the Black Hawk Creek and a sewage-disposal plant and lift station. The estimated cost is $75,000. Burns & McDonnell, 825 Scarritt Bldg., is Engr.

**Brainerd, Minn.**—Bids will be received until Sept. 20 by A. Mahlum, City Clk., for the construction of lateral sewers in District Nos. 4 and 7.

**✚Sanstone, Minn.**—(Official)—The contract for the construction of approximately 9025 ft. of 8- and 6-in. sewers has been awarded to CHARLES EKLUND & CO., Duluth, at $8289. Noted Aug. 5.

**✚Stillwater, Minn.**—The contract has been awarded to McGEE & NOLAN, Stillwater, at $7689, for the construction of sewers in Churchill, Fourth, Second and South Fourth St. Noted Aug. 12.

**Chanute, Kan.**—All bids received Aug. 20 by C. G. Wood, City Clk., for the construction of a sewage-disposal plant and septic tanks have been rejected. New bids will be received. Noted Aug. 12.

**Coffeyville, Kan.**—Plans are being prepared by the City Engineer for the enlargement of the sewer system.

**Grand Island, Neb.**—Plans are being prepared by Grant & Fulton, Lincoln, for the construction of a storm and sanitary sewer system.

**✚Omaha, Neb.**—The contract has been awarded to the OFFERMAN CONSTRUCTION CO., South Omaha, at $6947, for the construction of 800 ft. of 18-in. pipe sewers, 48 Y's 6x18-in., four manholes and 407 lb. of cast iron.

**Aberdeen, S. D.**—The city contemplates the construction of an addition to the sewage-disposal plant.

**Centerville, S. D.**—(Official)—Bids will be received until Sept. 20 by S. Christensen, City Audr., for the construction of a sewer system. The estimated cost is $25,000. Noted Aug. 5.

**Whitehall, Mont.**—Bids will be received until Sept. 18 by the city for the installation of a sewer system. George E. Bayer, Whitehall, is Consult. Engr. Noted June 24.

**Harrisonville, Mo.**—Plans have been prepared for the construction of a sewer system. The estimated cost is $17,000. W. B. Rollins, Kansas City, is Consult. Engr. Noted June 3.

**★St. Louis, Mo.**—(Official)—Bids will be received until noon, Sept. 14, by E. R. Kimsey, Pres. Bd. of Pub. Ser., for the construction of sewers in Des Peres Sewer District No. 3, Harlem Creek Sewer District Nos. 12 and 13, Penrose Joint Sewer District, and in Baden Sewer District No. 2.

**Heber Springs, Ark.**—(Official)—Bids will soon be received for the sale of $90,000 in bonds, the proceeds of which will be used for the construction of water and sewer systems. B. R. Brown is Recdr. Noted Aug. 19.

★**Dallas, Tex.**—Bids were received Aug. 23, by J. B. Winslett, City Secy., for the construction of improved sewerage works, (a) Contract No. 5, North Interceptor, (b) Contract No. 6, pumping station, 36-in. force main and Oak Cliff trunk line across the Trinity River, (c) Contract No. 7, disposal works including 36-in. force main from Station No. 5 plus 88.7 to the disposal works as follows: General Construction Co., Ft. Worth, (a) $119,843; F. B. Horton & Son, Houston, (a) $109,423; Bailey, Reeder & Co., Mobile, Ala., (a) $80,708, (c) $417,058; Tarrant Construction Co., Ft. Worth, (a) $108,373; Winslett-Eldridge Co., Dallas, (a) $119,080; T. A. Garvin, San Antonio, (a) $81,195; Roach-Manigan Paving Co., Dallas, (a) $128,887, (b) $98,434, (c) $515,401; James Stewart & Co., Houston, (a) $131,484, (b) $107,630, (c) $527,269; Mayfield & Shaw, El Paso, (c) $545,988; H. C. Gass, San Antonio ,(c) $467,274. Noted July 29.

**Claremore, Okla.**—At a recent election the citizens defeated the question of issuing $25,000 in bonds, the proceeds of which was to have been used for the construction of storm sewers.

**Bonners Ferry, Idaho**—The city contemplates the construction of a sewer system estimated to cost $20,000.

✚**Lewiston, Utah**—The contract for the construction of a sewer system has been awarded to the WHEELWRIGHT CONSTRUCTION CO., Ogden, at $41,000.

✚**Logan, Utah**—The contract for the construction of sewers in Improvement District No. 2 has been awarded to PARROTT BROS., at $10,200.

**Roslyn, Wash.**—Bids will be received until 8 p.m., Sept. 13, by George T. Wake, City Clk., for the construction of sewers in local improvement Districts Nos. 1, 2, 3 and 4. Noted July 15.

**Portland, Ore.**—The city contemplates the construction of sewers in Water and Mill St. The estimated cost is $16,486. A. L. Barbur is City Audr.

**Huntington Beach, Calif.**—Bids will be received until Sept. 7 by the City Clerk for the construction of sewers in various streets including Tenth, 11th St. and Arcadia Ave.

✚**Los Angeles, Calif.**—The contract for the construction of the Myra Ave. sewer has been awarded to LAWRENCE SKOCHELICH, at $25,389.

✚**San Francisco, Calif.**—The Board of Public Works has awarded the contract to F. ROLANDI, at $4761, for grading and constructing sewers in Balba St.

**Stockton, Calif.**—Bonds for $550,00 have been sold. The proceeds will be used for the construction of storm water and sanitary sewer systems. Noted June 24.

**Berlin, Ont.**—Bids will be received until Sept. 7 by the city for the construction of sewage-disposal works, comprising tanks, filters, sludge beds and a pumping station. Chipman & Power, 204 Mail Bldg., Toronto, is Consult. Engr., and H. Johnston is City Engr. Noted July 22.

✚**South Vancouver, B. C.**—Contracts for sewer pipe have been awarded to McNEILL, WELCH & WILSON and to EVANS, COLEMAN & EVANS at $9000, and to the DOMINION GLAZED PIPE CO., at $20,000.

## GARBAGE

**Green Bay, Wis.**—C. F. Hunter Co., Chicago, Ill., has undertaken a campaign to promote the construction of a garbage incinerator for the city. The estimated cost is $20,000.

✚**San Antonio, Tex.**—The contract has been awarded to the SAN ANTONIO MACHINERY & SUPPLY CO., at $11,985, for installing a Decarie incinerator.

✚**Victoria, Tex.**—The contract has been awarded to the SAN ANTONIO MACHINERY & SUPPLY CO., San Antonio, at $7050 for furnishing one 6-ton 10-hour incinerator. Noted Aug. 19.

## STREETS AND ROADS

✚**Tiverton, R. I.**—The contract for constructing the Stafford Rd. has been awarded to L. H. CALLAN, Bristol, R. I., at $5780. Noted June 24.

✚**Hartford, Conn.**—Contracts for state road work have been awarded as follows: Waterford Township, a section of native stone macadam on the Hartford-New London Turnpike, to the FRAMINGHAM CONSTRUCTION CO., South Framingham, Mass., at $8000; Southington Township, a section of 2-in. bituminous macadam on Meriden Ave., to LEONARDO SUZIO, Meriden, at $8506; Durham Township, a section of 2-in. bituminous macadam on the Middlefield Rd., to FRANK ARRIGONI & BRO., Middletown, at $7360; North Haven Township, about 4950 lin.ft. trap rock macadam on the Mt. Carmel Rd., to A. D. BRIDGE'S SONS, INC., Hazardville, at $6412. Noted Aug. 5 and 26.

✚**Albany, N. Y.**—(Official)—Bids were received Aug. 24 by the State Highway Commission, Lancaster St., Albany, and contracts awarded for the construction of highways by state aid, as follows:

Road No. 1322, Allegany County, 7.29 miles: JOHN H. GORDON, Albany, $71,137 (awarded contract); Sullivan Construction Co., Syracuse, $74,584; Greenfield Construction Co., Hornell, $75,853; Bison City Engineering & Contracting Co., Inc., Buffalo, $77,301; W. C. Evans, Ambler, Penn., $82,556.

Road No. 52141-A, Broome County, 3.15 miles: LANE CONSTRUCTION CORPORATION, Meriden, Conn., $37,832 (awarded contract); F. P. Mecks, Long Pond, Penn., $38,254; Port Jervis Construction Co., Port Jervis, $41,723.

Road No. 1305, Cattaraugus County, 5.379 miles: DUNKIRK CONSTRUCTION CO., Dunkirk, $75,507 (awarded contract).

Road No. 1310, Chemung County, 4.02 miles: SULLIVAN CONSTRUCTION CO., Syracuse, $40,537 (awarded contract); Atlanta Construction Co., Atlanta, $40,867; F. L. Breeze, Elmira, $41,371; E. W. Walsh, Elmira, $41,382; McGreevey, McGuigan & Baum, Elmira, $42,336; Peter F. Connelly Co., Horseheads, $43,650; W. C. Evans, Ambler, Penn., $47,350.

Road No. 1311, Chemung County, 6.87 miles: J. W. BRENNAN CONSTRUCTION CO., INC., Geneva, $78,420 (awarded contract); Peter F. Connelly Co., Horseheads, $78,800; Sullivan Construction Co., Syracuse, $78,989; Weed & Walsh, Mechanicsville, $82,091; F. P. Meckes, Long Pond, Penn., $85,184; John Johnson Construction Co., Buffalo, $85,949; P. H. Murray, Rochester, $89,390.

Road No. 5585, Chenango-Madison County, 6.18 miles: CONROY & NIXDORF, Oneida, $47,814 (awarded contract); James Anderson, Menands, $50,472; Mondo Construction Co., Inc., Syracuse, $50,554; Newport Construction Co., Herkimer, $50,563; Paddelford & King, Sherburne, $50,629; Joseph McCormick, East Providence, R. I., $50,820; Charles O. McComb, Syracuse, $50,979.

Road No. 5574, Columbia County, 1.17 miles: BELMAR CONTRACTING CO., Troy, $31,786 (awarded contract); F. L. Bannin Plumbing, Heating & Contracting Co., Kingston, $33,676; Marks Kearney, Hudson, $34,603; Russell Parker Construction Co., Hudson, $34,762.

Road No. 1162, Dutchess County, 5.16 miles: CAIRNIE-ST. GEORGE CO., New York, $51,750 (awarded contract); DeGraff & Hogeboom, Kingston, $51,985; Amos D. Bridge's Sons, Inc., Hazardville, Conn., $52,066; Gruner & Hallenbeck, Harriman, $53,144; Abner M. Harper, Newburgh, $54,106; Conway Bros. & Kennedy, Eddyville, $54,536; Schunnemunk Construction Co., Highland Mills, $55,791; Samuel Beskin, Beacon, $55,893; Stanley Construction Co., Buffalo, $57,139.

Road No. 1163, Dutchess County, 6.18 miles: RUDDY-SAUNDERS CONSTRUCTION CO., Troy, $78,776 (awarded contract); Amos D. Bridges Construction Co., Hazardville, Conn., $82,067; Cairnie-St. George Co., New York, $83,501; Stanley Construction Co., Buffalo, $84,263; Weed & Walsh, Mechanicsville, $85,007; Frank G. Fowler Construction Co., Mt. Kisco, $85,274; DeGraff & Hogeboom, Inc., Kingston, $85,508; H. B. Sproul Construction Co., Inc., Peekskill, $86,647; Abner M. Harper, Newburgh, $87,784; Ward & Tully, Inc., Brooklyn, $88,204.

Road No. 1235, Dutchess County, 5.44 miles: SCHUNNEMUNK CONSTRUCTION CO., Highland Mills, $52,327 (awarded contract); S. B. Van Wagonen, Rondout, $53,303; Henry Clinton, Poughkeepsie, $54,572; Samuel Beskin, Beacon, $54,729; Gruner & Hallenbeck, Harriman, $54,812; R. G. Miller Contracting Co., Hartford, Conn., $55,092; Port Jervis Construction Co., Port Jervis, $56,673; Pierson Engineering & Construction Co., Hartford, Conn., $56,952; H. B. Sproul Construction Co., Inc., Peekskill, $62,985.

Road No. 1312, Dutchess County, 6.81 miles: RUDDY-SAUNDERS CONSTRUCTION CO., Troy, $62,826 (awarded contract); Marks Kearny, Hudson, $63,376; Amos D. Bridge's Sons, Inc., Hazardville, Conn., $67,739; Juniata Co., Philadelphia, Penn., $70,271; H. B. Sproul Construction Co., Inc., Peekskill, $70,687; Langan Construction Co., Albany, $74,228; DeGraff & Hogeboom, Inc., Kingston, $74,564; Stanley Construction Co., Buffalo, $76,005; Samuel Beskin, Beacon, $76,997; John J. Guinan Contracting Co., Brooklyn, $71,921.

Road No. 1313, Dutchess County, 6.86 miles: A. C. STEINBERG, JR., West Hartford, Conn., $64,341 (awarded contract); James Anderson, Menands, $68,092; John J. Guinan Contracting Co., Brooklyn, $69,137; John De Michael & Bro., Torrington, Conn., $69,737; Juniata Construction Co., Philadelphia, Penn., $70,377; Samuel Beskin, Beacon, $70,919.

Road No. 1314, Dutchess County, 5.37 miles: AMOS D. BRIDGE'S SONS, INC., Hazardville, Conn., $44,956; John Arborio, New Haven, Conn., $45,994; Weed & Walsh, Mechanicsville, $47,299; Blankfield & Donovan, Kingston, $47,782; Samuel Beskin, Beacon, $48,627; H. B. Sproul Construction Co., Inc., Peekskill, $49,261; Juniata Co., Philadelphia, Penn., $49,489; R. G. Miller Contracting Co., Hartford, Conn., $50,907.

Road No. 1304, Erie County, 1.17 miles: SHAW & LAKIN, Jamestown, $26,878 (awarded contract); O. M. Severson, Erie, Penn., $27,736; William H. Ring Contracting Co., Ogdensburg, $29,147; William C. Evans, Ambler, Penn., $28,431.

Road No. 5583, Greene County, 4.77 miles: CATSKILL CONSTRUCTION CO., Catskill, $43,833 (awarded contract); S. V. Van Wagonen, Rondout, $45,552; Gruner & Hallenbeck, Harriman, $47,688; George H. McEvoy, Creek Locks, $46,284; Marks Kearney, Hudson, $45,980; Richard Hopkins, Troy, $48,929; James Anderson, Menands, $50,755.

Road No. 1318, Livingston County, Road No. 1319, Monroe County, 1.88 miles: RIBSTEIN-HOLTER CO., INC., Rochester, $42,565 (awarded contract); Whitmore-Rauber & Vicinius, Rochester, $43,393; Charles O. McComb, Syracuse, $44,660; Langan Construction Co., Albany, $45,196; Chambers & Barnes, Rochester, $45,228.

Road No. 1321, Livingston County, 8.34 miles: AIBERT GAFFEY, Syracuse, $100,840 (awarded contract); Atlanta Construction Co., Atlanta, $109,477; P. H. Murray, Rochester, $116,432; J. M. Ludington Sons, Inc., Rochester, $120,191.

Road No. 5586, Madison County, 7.91 miles: SULLIVAN CONSTRUCTION CO., Syracuse, $64,126 (awarded contract); Conroy & Nixdorf, Oneida, $65,491; Mondo Construction Co., Inc., Syracuse, $67,918; James Anderson, Menands, $69,459; Newport Construction Co., Herkimer, $71,509; Joseph McCormick, East Providence, R. I., $74,343.

Road No. 5539, Monroe County, 7.31 miles: NEWPORT CONSTRUCTION CO., Herkimer, $69,481 (awarded contract); William H. Madden, Rochester, $70,704; Frank V. Brotsch Co., Rochester, $71,209; P. H. Murray, Rochester, $71,666; Michael H. Ripton, Rochester, $72,434; Thomas Grady, Rochester, $72,870; Cleveland & Sons, Brockport, $72,907; Harradine Bros. Co., Inc., Spencerport, $74,138; Michael Murphy, Rochester, $74,977; Morrisson & Quinn, Inc., Rochester, $75,135.

Road No. 5581, Monroe County, 0.14 mile: MORRISSON & QUINN, INC., Rochester, $10,827 (awarded contract); Dodge Construction Co., Inc., Rochester, $11,160; Whitmore-Rauber & Vicnius, Rochester, $11,211; Public Service Construction Co., Niagara Falls, $11,327; Wood & Tompkins, Hilton, $11,615; W. C. Evans, Ambler, Penn., $11,754.

Road No. 5576, Ontario County, 4.69 miles: SWEENEY & BOLAND, Rochester, $2641 (awarded contract); Richard Hopkins, Troy, $2849.

Road No. 5428, Rockland County, 0.99 mile: PAUL SANGER, Monsey, $5371 (awarded contract).

Road No. 5388, Rockland County, 2.16 miles: HASTINGS PAVEMENT CO., New York, $15,200 (awarded contract); John A. Jova, Inc., Newburgh, $18,995; Schunnemunk Construction Co., Highland Mills, $19,359; Paul Gsanger, Monsey, $20,721.

✚**Albany, N. Y.**—(Official)—Bids were received Aug. 24 by the State Highway Commission, Lancaster St., Albany, and contracts awarded for the repair of highways by state aid, as follows:

Repair Contract No. 850, Road No. 592, Cayuga County, 2.35 miles: RICHARD HOPKINS, Troy, $13,267 (awarded contract); J. H. Weidman, Syracuse, $13,374; M. J. Gleason, Syracuse, $13,634; Dana W. Robbins, Inc., New York, $13,987; Brayer Bros., Auburn, $14,138; Sweeney & Boland, Rochester,

$14,228; Edward S. Spyring, Syracuse, $14,835; Flood & Van Wirt Co., Hudson Falls, $14,937; Arthur F. McConvill, Ogdensburg, $15,181.

Repair Contract No. 849, Road No. 1016, Cayuga County, 3.14 miles: RICHARD HOPKINS, Troy, $21,550 (awarded contract); M. J. Gleason, Syracuse, $21,554; Semper Bros., Watertown, $22,527; W. J. Young, Locke, $22,757; Flood & Van Wirt Co., Hudson Falls, $22,790; Dana W. Robbins Co., Inc., New York, $22,933; Brayer Bros., Auburn, $23,794.

Repair Contract No. 846, Road No. 589, Columbia County, 3.81 miles: GEORGE HOLLER, Albany, $8814 (awarded contract); Thomas J. Martin, Beacon, $8886; William Doyle, Saugerties, $9135; Richard Hopkins, Troy, $9578; Jerry Sweeney, New Brighton, $9745.

Repair Contract No. 836, Road No. 376, Fulton County, 2.38 miles: CLARENCE WELCH & CO., Gloversville, $12,134 (awarded contract); John P. Dugan & Co., Amsterdam, $12,497.

Repair Contract No. 845, Road No. 436, Nassau County, 2.50 miles: EVERGREEN CONSTRUCTION CO., Long Island City, $8366 (awarded contract); Delta Contracting Co., Inc., Jamaica, $9416; William Doyle, Saugerties, $9364; Murray & Gardner, Center Moriches, $9708.

Repair Contract No. 842, Road No. 207, Ontario County, 0.60 mile: J. W. BRENNAN CONSTRUCTION CO., INC., Geneva, $12,284 (awarded contract); Connors & Gallivan Co., Elmira, $12,436; Schroder-Hicks Contracting Co., Rochester, $12,632.

Repair Contract No. 840, Road No. 228, Ulster County, 4.82 miles: JOHN F. GALLIVAN, Kingston, $18,812 (awarded contract); Blankfield & Donovan, Kingston, $20,441; Port Jervis Construction Co., Port Jervis, $20,759; L. F. Bannin Plumbing, Heating & Contracting Co., Kingston, $20,871; Gruner & Hallenbeck, Harriman, $21,641; DeGraff & Hogeboom, Kingston, $22,355.

Repair Contract No. 851, Road No. 694, Suffolk County, 3 miles: Murray & Gardner, Inc., Center Moriches, $10,186; Teconic Construction Co., Port Jervis, $11,880; MUNICIPAL ASPHALT CO., New York, $9125 (awarded contract). Noted Aug. 12.

**Albany, N. Y.**—(Official)—Bids were received Aug. 26 by the State Highway Commission, 55 Lancaster St., Albany, for the construction of highways by state aid, as follows:

Road No. 5588, Greene County, 3.95 miles: James M. Hamilton & Co., Gardner, $98,639; St. Lawrence Construction Co., Inc., Albany, $115,940; Abner M. Harper, Inc., Newburgh, $117,149; James Anderson, Menands, $117,469; Stanley Construction Co., Buffalo, $120,523; George H. McAvoy, Creek Locks, $122,058; William G. Fox, Saratoga Springs, $122,311; Ward & Tully, Inc., Brooklyn, $125,264; Fulton Engineering Co., Albany, $125,785.

Road No. 5579, Herkimer County, 6.55 miles: Newport Construction Co., Herkimer, $63,077; James Anderson, Menands, $63,357; Joseph McCormick, East Providence, R. I., $67,782.

Road No. 5584, Herkimer County, 4.21 miles: Joseph McCormick, East Providence, R. I., $46,423; Newport Construction Co., Herkimer, $48,957.

Road No. 773, Niagara County, 2.38 miles: F. J. Mumm Contracting Co., Buffalo, $23,424.

Road No. 799, Niagara County, 4.21 miles: Arthur F. McConville, Ogdensburg, $53,156; Greenfield Construction Co., Hornell, $54,245; Joseph Brumver, Buffalo, $54,909; Woolsey Construction Co., Poughkeepsie, $55,178; Garradine Bros. Co., Inc., Spencerport, $57,253; F. J. Mumm Contracting Co., Inc., Buffalo, $59,255.

Road No. 1315, Niagara County, 8 miles: Joseph Brumver, Buffalo, $97,340; Serviss & Mackey, Youngstown, $101,902; Thomas F. Shaughnessy, Albany, $104,380; Cold Spring Construction Co., Buffalo, $105,307; Woolsey Construction Co., Poughkeepsie, $112,286.

Road No. 1153, Niagara County, 1.27 miles: Greenfield Construction Co., Hornell, $69,644; Caleb Hyatt, Yonkers, $70,101; Langan Construction Corporation, Albany, $71,184; Public Service Contracting Co., Niagara Falls, $73,694; C. N. Stainthorpe, Lockport, $74,353; C. B. Whitmore Co., Lockport, $78,476.

Road No. 5408, Oswego County, 0.36 mile: Oswego Construction Co., Fulton, $16,490; William H. Ring Contracting Co., Ogdensburg, $16,495; J. E. Bishop, Syracuse, $16,866; F. P. Meckes, Long Pond, Penn., $17,261; Bison City Engineering & Contracting Co., Inc., Buffalo, $17,284; J. J. Cashin, Fayetteville, $17,326; E. S. Spyrting, Syracuse, $17,639.

Road No. 817, Saratoga County, 3.57 miles: John Arborio, New Haven, Conn., $34,960; Weed & Walsh, Mechanicsville, $35,092; John B. Dower, Ballston Spa, $35,700; Thomas H. Karr, Troy, $36,437; D. J. Snell & Co., Canajoharie, $36,783; William G. Fox, Saratoga Springs, $38,158; Juniata Co., Philadelphia, Penn., $38,316.

Road No. 1320, Schuyler County, 2.75 miles: Patrick D. Conley, Ithaca, $25,380; Richard Hopkins, Troy, $26,804; James Rossney, Buffalo, $27,202; John H. Gordon, Albany, $28,267; Bison City Engineering & Contracting Co., Buffalo, $28,750; McGuigan, McGreevey & Baum, Elmira, $29,260; Hendrickson-McCabe Construction Co., Spencerport, $30,838.

Road No. 5575, Schuyler and Tompkins Counties, 4.12 miles: Patrick D. Conley, Ithaca, $35,160; James Rossney, Buffalo, $36,808; Sullivan Construction Co., Syracuse, $37,784; Bison City Engineering & Contracting Co., Inc., Buffalo, $38,255; Hendrickson-McCabe Construction Co., Inc., Spencerport, $40,026; John H. Gordon, Albany, $40,054; W. C. Evans, Ambler, Penn., $41,911.

Road No. 5577, Schoharie County, 7.96 miles: Weed & Walsh, Mechanicsville, $91,046; Newport Construction Co., Herkimer, $91,697; James Anderson, Menands, $94,459.

Road No. 5253-E, Steuben County, 5.52 miles: Kennedy Construction Co., Albany, $38,796; Greenfield Construction Co., Hornell, $41,320; John C. Bradley, Corning, $43,573; T. H. Gill Co., Binghamton, $43,71[illegible] Bison City Engineering & Contracting Co., Buffalo, $47,555; [illegible]. H. Murray, Rochester, $47,809; W. C. Evans, Ambler, Penn., 4$9,068; Thomas Grady, Rochester, $49,978.

Road No. 1076, Tioga County, 4.29 miles: Dana W. Robbins Co., Inc., New York, $35,354; T. H. Gill Co., Binghamton, $35,841; Richard Hopkins, Troy, $36,166; Sullivan Construction Co., Syracuse, $36,190; Atlanta Construction Co., Atlanta, $36,210; F. P. Meckes, Long Pond, Penn., $36,963; Lane Construction Corporation, Meriden, Conn., $37,369.

Road No. 1077, Tioga County, 4.72 miles: Lane Construction Corporation, Meriden, Conn., $36,148; T. H. Gill Co., Binghamton, $39,279; Dana W. Robbins, Inc., New York, $39,508; Sullivan Construction Co., Syracuse, $39,559; Richard Hopkins, Troy, $39,796; Atlanta Construction Co., Atlanta, $39,916; Peter F. Connolly Co., Horseheads, $40,826.

Road No. 1109, Washington County, 2.06 miles: William L. Sherrill, Hudson Falls, $16,975; Juniata Co., Philadelphia, Penn., $17,831; Kellogg Boynton, Keeseville, $17,966; Thomas H. Karr, Troy, $18,128; A. G. & D. T. Perry, Brattleboro, Vt., $18,663.

Road No. 5578, Washington County, 1.89 miles: William G. Fox, Saratoga Springs, $29,582; Thomas H. Karr, Troy, $31,191; John B. Dower, Ballston Spa, $32,058; Kellogg Boynton, Keeseville, $32,365.

Road No. 1306, Westchester County, 5.72 miles: Pierson Engineering & Construction Co., Hartford, Conn., $66,010; Frank G. Fowler Construction Co., Mt. Kisco, $68,307; Harris-Rose Construction Corporation, New York, $68,619; John De Michael & Bro., Torrington, Conn., $70,904; Amos D. Bridge's Sons, Inc., Hazardville, Conn., $71,630; Gruner & Hallenbeck, Harriman, $73,922; H. B. Sproul Construction Co., Inc., Peekskill, $78,068.

Road No. 1307, Westchester County, 1.89 miles: James Ciascia & Vincent Cartesi, Mt. Vernon, $22,231; Frank G. Fowler Construction Co., Mt. Kisco, $25,276; H. B. Sproul Construction Co., Peekskill, $27,428.

Road No. 1308, Westchester County, 2.15 miles: James Garofano & Son, Mt. Vernon, $24,738; James Ciascia & Vincent Cartesi, Mt. Vernon, $25,700; John De Michael & Bro., Torrington, Conn., $26,040; Frank G. Fowler Construction Co., Mt. Kisco, $26,109; Caesar A. Rossi, Harrison, $26,253; White & Colligan, Purchase, $26,256; H. B. Sproul Construction Co., Inc., Peekskill, $26,531.

Road No. 1309, Westchester County, 6.63 miles: Henry Clinton, Poughkeepsie, $67,954; Conway Bros. & Kennedy, Eddyville, $71,653; H. B. Sproul Construction Co., Inc., Peekskill, $73,168; Frank G. Fowler Construction Co., Mt. Kisco, $76,788.

Road No. 1323, Westchester County, 4.62 miles: Frank G. Fowler Construction Co., Mt. Kisco, $49,183; H. B. Sproul Construction Co., Inc., Peekskill, $51,389; William F. McCabe Construction Co., Inc., White Plains, $58,528.

Road No. 1325, Westchester County, 2.81 miles: H. B. Sproul Construction Co., Inc., Peekskill, $25,795; James Garofano Sons, Inc., Mt. Vernon, $25,841; Frank G. Fowler Construction Co., Mt. Kisco, $26,277; Amos D. Bridge's Sons, Inc., Hazardville, Conn., $26,710; James Ciascia & Vincent Cartesi, Mt. Vernon, $26,973; Gruner & Hallenbeck, Harriman, $27,702; Harris-Rose Construction Corporation, New York, $28,135.

Road No. 1324, Westchester County, 3.02 miles: H. B. Sproul Construction Co., Inc., Peekskill, $28,858; Caesar A. Rossi, Horicon, $28,071; Gruner & Hallenbeck, Harriman, $29,120; James Garofano & Son, Inc., Mt. Vernon, $29,129; Frank G. Fowler Construction Co., Mt. Kisco, $29,827; Harris-Rose Construction Corporation, New York, $30,113; John A. Jova, Inc., Newburgh, $30,834.

**Albany, N. Y.**—(Official)—Bids were received Aug. 26 by the State Highway Commission, 55 Lancaster St., Albany, for the repair of highways by state aid, as follows:

Repair Contract No. 839, Road No. 463, Herkimer County: J. J. Malloy, Schenectady, $18,797; Huntoon & Ferguson, Hudson Falls, $20,088; Michael O'Brien, Cortland, $20,321; Newport Construction Co., Herkimer, $20,366; B. J. Gaffney, Saratoga Springs, $22,127; Port Schuyler Construction Co., Inc., Oneida, $22,161; R. D. Cooper, Little Falls, $22,224.

Repair Contract No. 852, Road No. 359, Herkimer County: John P. Dugan & Co., Amsterdam, $10,360; Newport Construction Co., Herkimer, $10,569; Harry W. Roberts Co., Utica, $10,990; Phelan & Sullivan, Utica, $11,242; Dana W. Robbins, Inc., New York, $11,361.

Repair Contract No. 848, Road No. 71, Oneida County: Harry W. Roberts & Co., Utica, $13,649.

Repair Contract No. 841, Road No. 733, St. Lawrence County: Arthur F. McConville, Ogdensburg, $20,551; Kellogg Boynton, Keeseville, $21,878.

Repair Contract No. 844, Road No. 640, Schenectady County: J. J. Malloy, Schenectady, $8706; John P. Dugan Co., Amsterdam, $8923; Huntoon & Ferguson, Hudson Falls, $8936; Brown & Lowe Co., Schenectady, $10,196.

Repair Contract No. 837, Roads Nos. 795, 823 and 824, Sullivan County: George Mesler, Liberty, $4518; L. F. Bannin Plumbing, Heating & Contracting Co., Kingston, $4839; Port Jervis Construction Co., Port Jervis, $4857; Nash & Griffin, Norwich, $5011; Kelly & Wheeler, Buffalo, $5190; Armstrong & Trowbridge, Middletown, $6065; Thomas J. Martin, Beacon, $7230.

Repair Contract No. 843, Road No. 5223, Sullivan County: Armstrong & Trowbridge, Middletown, $41,492; George Mosler, Liberty, $42,327; Jackson Bros., Cuddebackville, $43,376; Port Jervis Construction Co., Port Jervis, $44,500.

Repair Contract No. 838, Road No. 503, Westchester County: Malloy & Murray Contracting Co., Yonkers, $96,2434; Lewis Petrillo, Mt. Vernon, $97,517; Caleb Hyatt, Yonkers, $98,515; Borough Asphalt Co., Brooklyn, $101,302.

Repair Contract No. 847, Road No. 19, Westchester County: James Garofano & Son, Inc., Mt. Vernon, $11,359; White & Colligan, Purchase, $11,755; William F. McCabe Contracting Co., Inc., White Plains, $12,576; Miguell Houck, White Plains, $12,687; John A. Jova, Inc., Newburgh, $12,963. Noted Aug. 12.

**✚Clifton Springs, N. Y.**—A contract for constructing approximately 1100 lin.ft. of road with curb and gutters has been awarded to THOMAS MURRAY, Le Roy, at $5447.

**✚Cohoes, N. Y.**—The contract for paving Garner St. from Johnston Ave. to the New York Central R.R. viaduct has been awarded to the THOMAS F. GRATTON CONSTRUCTION CO., Cohoes, at $21,199.

**Dunkirk, N. Y.**—James McNamara, Dunkirk, submitted the lowest bid for paving Woodrow Ave. (Bass St.) from Fourth to Sixth St.

**Farmingdale, N. Y.**—Bids will be received by James T. Holle, Secy., Bd. of Trustees, 16 Court St., New York, N. Y. (Borough of Brooklyn), until Sept. 8, for constructing concrete walks at the New York State School of Agriculture.

**New York, N. Y.**—(Borough of Bronx)—(Official)—Bids will be received by Douglas Mathewson, Boro. Pres., Municipal Bldg., 177th St. and Third Ave., until 10:30 a.m., Sept. 8, for road improvements on Haviland Ave.

**✝New York, N. Y.**—(Borough of Manhattan)—The contract for paving with asphalt 25th, 55th, 65th, 67th, 80th and 85th St., has been awarded to the SICILIAN ASPHALT PAVING CO., 41 Park Row, at $56,500.

**✝Niagara Falls, N. Y.**—The contract for paving 14th St. from Pine to Terry Ave. has been awarded to McKINNEY & MAGUIRE, at $15,000.

**Oneonta, N. Y.**—(Official)—Bids will be received until 8 p.m., Sept. 6, by Sheldon H. Close, City Clk., for paving a number of streets with concrete.

**✝Rochester, N. Y.**—Contracts have been awarded for paving Aberdeen and Marion St. with asphalt, to WHITMORE, RAUBER & VICINUS, at $9332 and $9252 respectively; Oneida St. with brick to the FLOWER CITY CONTRACTING CO., at $4776.

**✝Schenectady, N. Y.**—Contracts have been awarded for paving Watt St. to the SCHENECTADY CONSTRUCTION CO., Schenectady, at $14,641; Maplewood and 19th Ave. to the UNION PAVING CO., Schenectady, at $17,997.

**✝Syracuse, N. Y.**—The contract for paving Euclid Ave. and Pine St. has been awarded to the SCHENECTADY PAVING CO., Schenectady, at $7598 and $8850, respectively.

**Watertown, N. Y.**—The Board of Public Works has authorized the construction of 14 additional ft. of concrete pavement on Coffeen St. from Cedar St. to a point 50 ft. below Fair St. Bids for this work were received from Guy H. Miller, $4924; Gooley & Willard, $5102; A. F. Nims, Philadelphia, $5073; Burns Bros. & Haley, $4955.

**Newark, N. J.**—Bids were received Aug. 26 for paving Eckert Ave. from Seymour Ave. to Osborne Terrace as follows: Northern Construction Co., $5072; Uvalde Asphalt Co., $5719; Continental Public Works Co., $5463. Noted July 22.

**✝Roseland, N. J.**—The contract for paving Portland St. with macadam has been awarded to ROBERT DORIETY, 166 Ridge St., Newark.

**★Bethlehem, Penn.**—(Official)—Bids will be received until noon, Sept. 11, by Milton M. Mitman, Chn. of Street Com., 403 South Main St., for paving Linden St., Broad St., Main St. and Prospect Ave. A. M. Cawley, First National Bank Bldg., is Borough Engr. Noted Aug. 26.

**Harrisburg, Penn.**—(Official)—Bids will be received by the State Highway Department until 10 a.m., Sept. 15, for reconstructing 22,999 lin.ft. of road in Henderson Township, Huntingdon County, and 11,987 lin.ft. of road in East Marboro Township, Chester County.

**✝Lewisburg, Penn.**—The contract for paving Market St. has been awarded to WILLIAM LYONS, Sunbury, at $6000.

**Philadelphia, Penn.**—The lowest bids received for the repair of asphalt pavements were those of the Barber Asphalt Paving Co., at $5535 and $55,762. Noted Aug. 19.

**✝Philadelphia, Penn.**—The Department of Public Works has awarded the contract for repaving Chelton Ave. to the McMAHON ESTATE, Germantown, at $23,000.

**Pittsburgh, Penn.**—(Official)—Bids will be received until 10 a.m., Sept. 9, by Hyatt M. Crilbs, County Controller, for improving the Elkhorn and Monongahela City Rd., Lincoln Way Extension and Round Road Hill Rd.

**Reading, Penn.**—Press reports state that the City Council contemplates an expenditure of $19,000 for paving various streets. Edmond Ulrich is City Engr.

**Saxonburg, Penn.**—(Official)—Bids will be received until 7 p.m., Sept. 7, by E. L. Rudert, Borough Clk., for improving Main St.

**✝Wilkinsburg, Penn.**—(Official)—A contract for regrading, recurbing and repaving a number of streets has been awarded to A. V. PURNELL, 507 Jackson St., Allegheny, at $38,890. Noted Aug. 19.

**Wilmington, Del.**—The City Council has authorized a bond issue of $200,000, the proceeds of which will be used for improving a number of streets.

**✝Cecilton, Md.**—The contract for constructing a stone road from Warwick to Cecilton has been awarded to the JUNIATA PAVING CO., Philadelphia, Penn., at $37,000.

**Denton, Md.**—(Official)—Bids will be received until noon, Sept. 21, by the Commissioners of Caroline County for constructing a section of State Aid Highway in Caroline County along the Marydel and Templeville Rd. between Marydel and Templeville, for a distance of 2.06 miles.

**Hagerstown, Md.**—A contract for paving 1.86 miles of State Aid Highway in Washington County with macadam has been awarded to HOLLINGER & DENNIS, Clear Springs, Md., at $7981. Noted Aug. 12.

**Accomac, Va.**—Bids will be received until Sept. 7 by John D. Grant, Jr., Clk., County Bd. of Superv., for the sale of $30,000 in bonds. The proceeds will be used to improve the roads in Atlantic, Lee and Pungoteague Districts.

**★Charleston, W. Va.**—(Official)—Bids will be received until noon, Sept. 7, by B. A. Wise, City Mgr., for paving certain streets and alleys in the city of Charleston.

**Wellsburg, W. Va.**—Bids will be received until Sept. 4 by the County Court of Brooke County for paving the county road from the north end of Follansbee to the south end of Follansbee to the south end of Bates' Bridge. M. E. Boyd is Engr.

**✝Concord, N. C.**—The contract for paving West Depot St. from the intersection of Spring St. to the depot and Church St. from East Corbin to the east depot has been awarded to R. M. HUDSON, Atlanta, at $40,000.

**Gastonia, N. C.**—(Official)—Bids will be received until noon, Sept. 9, by the Commissioners of Gaston County, for the sale of $150,000 in bonds, the proceeds of which will be used for constructing roads in Gaston County. Noted June 24 and Aug. 19.

**Roxboro, N. C.**—Bonds for $15,000 will be sold. The proceeds will be used for improving a number of streets.

**✝Arcadia, Fla.**—The Commissioners of De Soto County have awarded the contract to the ALABAMA PAVING CO., Birmingham, Ala., for constructing 11½ miles of rock roads in the Wauchula-Bowling Green Rd. District.

**Clearwater, Fla.**—At a recent election the citizens voted in favor of issuing $715,000 in bonds, the proceeds of which will be used for constructing 78 miles of brick highway.

**Ft. Myers, Fla.**—According to press reports a road will be constructed between Ft. Myers and Naples and between Naples and Marco. Bonds for $177,500 have been voted for this purpose. Noted May 27.

**✝Ft. Myers, Fla.**—A contract for paving three miles of streets with brick has been awarded to the Southern Clay Mfg. Co., Chattanooga, Tenn.

**Gulfport, Fla.**—An election will be held Oct. 19 to vote on the question of issuing $10,000 in bonds, part of the proceeds of which will be used for constructing two miles of modified asphalt streets.

**✝Kissimmee, Fla.**—A contract for constructing three miles of brick road has been awarded to the ALABAMA PAVING CO., Orlando, Fla., at $28,000. Bonds for this purpose have been voted. Noted Aug. 5.

**Kissimee, Fla.**—At a recent election the citizens voted in favor of issuing $12,000 in bonds, the proceeds of which will be used for paving Main St.

**Tallahasse, Fla.**—An election will be held in Leon County, Sept. 21, to vote on the question of issuing $200,000 in bonds, the proceeds of which will be used for constructing various roads, including $100,000 for the Dixie Highway. J. C. Moore is Chn. of the Comrs. of Leon County.

**✝Tarpon Springs, Fla.**—The contract for widening and repaving Orange St. with brick has been awarded to the J. B. McCRARY CO., Atlanta, Ga.

**West Palm Beach, Fla.**—Bids will be received until Sept. 7 by the Commissioners of Palm Beach for constructing and hard surfacing the main county line in District No. 5. F. E. Encell is Chn. of the Comrs.

**Carrollton, Ala.**—Bids will be received until Sept. 22 by the Pickens County Commissioners for grading, draining and surfacing with gravel or sand-clay a portion of the Carrollton and Reform Rd., at an estimated cost of $11,159.

**Gadsden, Ala.**—Press reports state that the Commissioners of Etowah County will construct 7½ miles of the Turkeytown Rd. The work will be done by convict force.

**Linden, Ala.**—Bids will be received until Sept. 7 by A. L. Hasey, Comr. of Marengo County, for the construction of approximately 40 miles of sand-clay road in Marengo County. S. W. Gaines, Jr., Selma, is Engr.

**Montgomery, Ala.**—Bonds for $152,000 will soon be sold. The proceeds will be used for street improvements.

**Russellville, Ala.**—At a recent election the citizens of Franklin County voted in favor of issuing $145,000 in bonds, the proceeds of which will be used for building a pike road.

**Clarksdale, Miss.**—Bids will be received until Sept. 6 by S. S. Carr, Chancery Clk., for constructing two miles of gravel road in Supervisors' District No. 1, Coahoma County.

**Columbus, Miss.**—The construction of a road from Columbus, Miss., to Vernon, Ala., is contemplated by the Commissioners of Lamar and Lowndes Counties.

**Macon, Miss.**—Bids will be received until Sept. 6 by John A. Tyson, Chancery Clk., for improving roads in Noxubee County.

**Magnolia, Miss.**—Bids will be received until Sept. 6 by Charles E. Brumfield, Clk., County Bd. of Superv., for the sale of $100,000 in bonds, the proceeds of which will be used for improving the roads in Fourth Supervisors District.

**Lake Charles, La.**—Bids will be received by E. C. House, Clk., Police Jury, until Sept. 7, for constructing 6½ miles of gravel road on Highway No. 6 and 5 miles on Highway No. 8.

**Dickson, Tenn.**—At a recent election, the question of issuing $250,000 in bonds, the proceeds to be used for constructing roads in Dickson County, was defeated.

**Clarksville, Tenn.**—Bonds for $50,000 have been sold, the proceeds of which will be used for improving and constructing roads in Montgomery County.

**Huntsville, Tenn.**—At a recent election the citizens of Scott County voted in favor of the question of issuing $300,000 in bonds, the proceeds of which will be used for improving various roads.

**Maryville, Tenn.**—At a recent election the citizens of Blount County voted in favor of issuing $300,000 in bonds, the proceeds of which will be used for constructing roads, pikes and macadamizing roads already graded. Noted Feb. 11 and June 24.

**Rogersville, Tenn.**—Bids will be received until Sept. 6 by H. B. Stamps, Chn., County Court, for the sale of $250,000 in bonds, the proceeds of which will be used for improving a number of roads.

**Rutledge, Tenn.**—An election will be held Sept. 9 to vote on the question of issuing $200,00 in bonds, the proceeds of which will be used for constructing roads in Grainger County. Noted Aug. 12.

**Louisville, Ky.**—(Official)—Bids will be received until 2 p.m., Sept. 7, by the Board of Public Works for improving various streets.

**✝Whitesburg, Ky.**—The contract for grading and draining the road from Whitesburg to Corbin has been awarded to M. A. WHEELER at $42,000.

**✝Bowling Green, Ohio**—Contracts have been awarded for grading, draining and macadamizing Snell Rd. to N. L. DECKARD, Bowling Green, at $8943; Minning Rd., to OTTO BROUGH, Genoa, at $8611; Kearning Joint Rd. to THOMAS CONSTRUCTION CO., Sandusky, at $8994. Noted July 29.

**Cincinnati, Ohio**—(Official)—Bids will be received until noon, Sept. 7, by Philip Fosdick, Dir. Pub. Ser., for improving Gest St. from Freeman Ave. to Baymiller St.

**✚Cleveland, Ohio**—(Official)—The contract for improving Lorain Ave. from West 73rd to West 98th St. has been awarded to ROEHL BROS., Thompson Bldg., Cleveland, at $62,893. Noted Aug. 19.

**Columbus, Ohio**—Bonds for $100,500 have been sold. The proceeds will be used for improving various roads.

**Columbus, Ohio**—Bids will be received until noon, Sept. 7, by George A. Borden, Dir. Pub. Ser., for paving Nelson Rd. and Rhoades Ave.

**✚Columbus, Ohio**—Bids were received Aug. 20 by Clinton Cowen, State Highway Comr., and contracts awarded for road construction in various counties as follows: Fulton County, Archbold-Fayette Rd., 1 mile of macadam to the KELLY CONSTRUCTION CO., $7400. Fulton County, Toledo-Angola Rd., 2.52 miles of waterbound macadam to GRAY BROS., Bowling Green, $20,500. Guernsey County, Cambridge-Caldwell Rd., bituminous macadam to PETROS & PALMER, Marietta, $27,400. Lucas County, Toledo-Napoleon Rd., 3.11 miles of waterbound macadam to C. W. RYAN, Maumee, to L. L. ALLEN, La Rue, $9159. Delaware County, Columbus-Sandusky Rd., 1.44 miles of waterbound macadam to JOHN McNAMARA, JR., Delaware, $8130. Noted Aug. 19.

**✚Columbus, Ohio**—Contract. for road improvements have been awarded by the Franklin County Commissioners as follows: Mock Rd. to B. F. PATTERSON, Columbus, $59,250; Manhattan Ave., Linden, to R. W. McCOY, Columbus, $9135; McDonald Rd., Truro Township, to H. E. BARTHMAN, Columbus, $10,087; Harl Rd., Sharon Township, W. O. JEWETT, Columbus, $11,095. Noted Aug. 5.

**Elyria, Ohio**—Bids will be received until 1 p.m., Sept. 8, by F. L. Ellenburger, Clk. of the Lorain County Comrs., for resurfacing the La Grange-North Center Rd. with bituminous bound macadam.

**Northfield, Ohio**—(Official)—Bids will be received until 7:30 p.m., Sept. 7, by C. S. Machwart, Village Clk., for improving the Brandywine Rd. from the Brecksville-Macedonia Rd. to the intersection of the Lock Rd.

**Oakharbor, Ohio**—Bids will be received until Sept. 7 by the Village Clerk for paving 2500 sq.yd. with brick or asphaltic concrete.

**✚Toledo, Ohio**—The contract for paving Miami St. has been awarded to NAVARRE HARRIS & TANSEY, Toledo, at $15,523.

**Uhrichsville, Ohio**—Bonds for $25,000 have been sold. The proceeds will be used for paving Dawson St.

**Warren, Ohio**—(Official)—Bids will be received until noon, Oct. 2, by George T. Hecklinger, City Audr., for the sale of $19,800 and $7800 in bonds, the proceeds of which will be used for paving Homewood Ave. and East Franklin St., respectively.

**Woodsfield, Ohio**—Bids will be received by the County Commissioners until Sept. 8 for the sale of $20,000 in bonds, the proceeds of which will be used for improving a number of roads.

**Wooster, Ohio**—Bids will be received until noon, Sept. 10, by Peter C. Given, Dir. Pub. Ser., for paving North Buckeye St. with brick.

**Zanesville, Ohio**—Ayers & Kappes, Zanesville, at $128,555, submitted the lowest bid for improving Adamsonville Rd.

**✚Brownstown, Ind.**—A contract for paving approximately 17 blocks with concrete has been awarded to H. E. KATTMAN, Brownstown, at $19,931. Noted July 29.

**✚Ft. Wayne, Ind.**—A contract for constructing a stone road in Perry Township has been awarded to J. C. O'CONNOR & SON, Delphi, at $12,385.

**Indianapolis, Ind.**—The Board of Public Works plans to resurface Capitol Ave. from Indiana Ave. to Tenth St. Estimated cost, $62,984.

**Mt. Vernon, Ind.**—Bids will be received until Sept. 7 by the County Commissioners for constructing two gravel roads in Black Township. J. R. Haines is County Audr.

**New Albany, Ind.**—According to press reports the County Commissioners contemplate the construction of a road between New Albany and Indianapolis to connect with proposed Dixie Highway.

**Adrian, Mich.**—Press reports state that Fairfield Township plans to construct a seven-mile stone road as part of a trunk line connection Adrian with northern Ohio.

**✚Belding, Mich.**—(Official)—A contract for paving a number of streets with metropolitan wire cut lug block on a 6-in. concrete foundation with concrete curb and grout filler has been awarded to A. H. PRANGE, Grand Rapids, at $39,196.

**✚Deerfield, Mich.**—The contract for constructing 12.5 miles of macadam roads has been awarded to W. H. KNAPP, Monroe, at $66,010. Noted Aug. 12.

**✚Lansing, Mich.**—A contract for paving the drives at the Capitol with cresoted wood blocks has been awarded to WILLIAM H. RYAN, Lansing.

**✚Aurora, Ill.**—The contract for paving South St. with brick has been awarded to J. E. SALFISBERG & CO., at $14,639. Noted July 22.

**✚Champaign, Ill.**—A contract for constructing 11,200 sq.yd. of brick pavement with asphalt filler has been awarded to STIPES & PILCHER, 108 North Walnut St., Champaign, at $33,000.

**✚East Dubuque, Ill.**—The contract for paving Sinsinawa Ave. has been awarded to the MIDWEST CONSTRUCTION CO., Chicago, at $14,000.

**Freeport, Ill.**—Plans have been received by Oscar G. Hiveley, Supt. of Stephenson County, for improving Globe Ave., estimated cost $7819.

**✚Glenellyn, Ill.**—A contract for paving various streets with granite has been awarded to the ILLINOIS HYDRAULIC STONE & CONSTRUCTION CO., Elgin, at $74,000. Noted June 17.

**✚Kankakee, Ill.**—The contract for paving North Fifth St. with brick has been awarded to F. L. SHIDLER, at $17,944.

**✚Mt. Carmel, Ill.**—A contract for grading and gravelling 10 miles of road in the Mt. Carmel Rd. District has been awarded to HOFFMAN, TOWNSEND & PARKS, Mt. Carmel, at $57,000. Noted Aug. 5.

**✚Peoria, Ill.**—The A. D. THOMPSON CO., Peoria, at $14,731, has been awarded a contract for paving with brick a part of Frye Ave.

**Columbus, Wis.**—Bids will be received until 3 p.m., Sept. 14, by Benjamin Paepke, City Clk., for improving a portion of Madison Rd.

**West Allis, Wis.**—Bids will be received until 7.30 p.m., Sept. 3, by the Acting Board of Public Works for paving portions of Mitchell St., 60th Ave., Greenfield Ave. and National Ave. George Mahoney is City Clk.

**Des Moines, Iowa**—Bids will be received until 10 a.m., Sept. 8, by A. H. Davis, Secy., Executive Council State Capitol, for grading grounds and streets of extended capitol grounds.

**Guthrie Center, Iowa**—Bids will be received until Sept. 30 by Seth B. Weeks, Town Clk., for paving approximately 30 blocks with sheet asphalt, asphaltic concrete, bitulithic, vitrified brick or concrete.

**Idagrove, Iowa**—At a recent election the citizens voted in favor of the question of issuing $15,000 in bonds, the proceeds of which will be used for paving a number of streets.

**✚Duluth, Minn.**—The contract for paving 21st Ave. from Fourth St. to Seventh Alley has been awarded to HILLIARD & JULIEN, at $5522.

**St. Paul, Minn.**—The City Council has authorized bond issues for $6500 and $20,000, the proceeds of which will be used for paving Fourth St. from St. Peter St. to the Seven Corners and Fifth St. from Broadway to St. Peter St. respectively.

**Junction City, Kan.**—Bids will be received until Sept. 7 by the Commissioners of Geary County for constructing one mile of concrete road.

**Kearney, Neb.**—An election will be held Sept. 7 to vote on the question of issuing $50,000 in bonds, the proceeds of which will be used for street paving.

**✚Lincoln, Neb.**—(Official)—A contract for street paving in District No. 8 has been awarded to the BURKE-COCHRANE CO., Lincoln. Noted Aug. 12.

**✚Sioux Falls, S. D.**—The contract for paving Main St. from Fifth to 13th St. with bitulithic has been awarded to WARREN BROS., Boston, Mass.

**Jefferson City, Mo.**—An election will be held Oct. 19 to vote on the question of issuing $100,000, in bonds, the proceeds to be used for road construction in Cole County.

**Kansas City, Mo.**—Bids will be received about Sept. 14 by the City Council for improving portions of a number of streets.

**✚Sedalia, Mo.**—(Official)—The contract for surfacing approximately 2½ miles of rock road in Sedalia Special Rd. District has been awarded to LEE CARPENTER, Sedalia. Noted Aug. 19.

**✚Russellville, Ark.**—A contract for constructing 26 miles of macadam road from Russellville to Hector has been awarded to W. C. JUCKSCH, Little Rock, at approximately $100,000. Bonds for this purpose were recently voted. Noted Aug. 12.

**✚Dallas, Tex.**—The contract for paving Davis, Hines and Canty St. has been awarded to the STANDARD ENGINEERING CO., at $35,000.

**✚Dallas, Tex.**—The contract for paving Fitzhugh St. has been awarded to the TEXAS BITULITHIC CO., at $11,854.

**McKinney, Tex.**—A bond issue of $200,000 has been approved by the Attorney General. The proceeds will be used for the construction of roads in District No. 8.

**Lawton, Okla.**—(Official)—Bids will be asked in about 60 days by the Commissioners of Comanche County for the construction of county highways. estimated to cost $5000. S. A. Joyner is County Engr.

**Salt Lake City, Utah**—(Official)—Bids will be received until 10 a.m., Sept. 15, by Karl A. Scheil, City Recdr., for paving 13th East St. from 11th South St. to Westminster Ave.

**✚Tacoma, Wash.**—The contract for paving South O. St. from Sixth Ave. to South 11th St. has been awarded to the McHUGH CONSTRUCTION CO., Tacoma, at $9989.

**Tacoma, Wash.**—Bids will be received until Sept. 10 by Thomas N. Norris, County Audr., for improving Permanent Highway No. 7.

**Walla Walla, Wash.**—Press reports state that the City Commissioners have voted to pave Howard and Chestnut St. The estimated cost is $15,000.

**Berkeley, Calif.**—Press reports state that the City Council plans to improve a number of streets at an estimated cost of $100,000.

**✚Compton, Calif.**—The contract for paving Main St. and Compton Ave. to the city limits has been awarded to GEORGE B. CURTIS, Los Angeles.

**✚Los Angeles, Calif.**—The contract for improving Court St. from Alvador to Lake St. has been awarded to E. A. BAKER, at $4653.

**Oakland, Calif.**—(Official)—Bids will be received until 10 a.m., Sept. 7, by George E. Gross, Clk. of Bd. of Supvrs. of Alameda County, for grading and paving with bitulithic the county roads in Murray Rd. District, Murray Township.

**San Francisco, Calif.**—See item under "Sewers."

**✚Dunnville, Ont.**—The contract for paving Canal St., E., with tarvia has been awarded to McRAE & CAMPAIGNE, Niagara Falls, Ont., at $10,460.

✚**Port Coquitlam, B. C.**—The contract for grading and paving Dewdney Trunk Rd. has been awarded to the COLUMBIA BITULITHIC CO., Port, Coquitlam, at $22,000.

## INDUSTRIAL WORKS

✚**Allston, Mass.**—Dwight Baldwin has awarded the contract for the construction of a one-story, 55x190-ft. public garage to NATHAN HURWITZ, 26 Wolcott St., Boston, Mass. John T. Spofford, 15 Beacon St., Boston, Mass., is Arch. The estimated cost is $25,000.

✚**Boston, Mass.**—W. F. Smith has awarded the contract for the construction of a one- and two-story, 65x131-ft. building to McDONALD & KIVELL, 155 Milk St. The estimated cost is $40,000. Stebbings & Watkins, 164 Federal St., is Arch. Noted July 1.

✚**Lawrence, Mass.**—(Official)—The Lenox Motor Car Co. will build a reinforced-concrete factory by day work. The estimated cost is $100,000. Gilman & Ames, 8 Congress St., Boston, Mass., is Arch. Noted Aug. 19.

✚**Springfield, Mass.**—The Bausch Machine Tool Co. has awarded the contract for the construction of a 41x50-ft. addition to its plant to J. G. ROY. The estimated cost is $11,000.

✚**Worcester, Mass.**—The Graton & Knight Mfg. Co., Franklin and Suffold St., has awarded the contract for the construction of a three-story, 67x200-ft., brick addition to its plant to F. W. MARKS, 4 Walnut St. The estimated cost is $50,000.

**Worcester, Mass.**—A. A. Ridyard, 7 Chandler St., plans the construction of a $60,000 garage.

✚**Providence, R. I.**—The CRUISE & SMILEY CONSTRUCTION CO., Pawtucket, R. I., has been awarded the contract for the construction of a two-story garage for the Merchants' Cold-Storage & Warehouse Co., Inc., Kinsley Ave. The estimated cost is $25,000. Jenks & Ballou, Grovesnor Bldg., is Arch.

✚**Bridgeport, Conn.**—The Remington Arms—Union Metallic Cartridge Co. has awarded the contract for the construction of three factories to the T. J. PARDY CONSTRUCTION CO. The estimated cost is $500,000.

✚**Bristol, Conn.**—The contract for the construction of a 127x252-ft. addition to the factory of the New Departure Mfg. Co. has been awarded to LEVERING & GARRIQUES, 552 West 23rd St., New York, N. Y.

✚**Amsterdam, N. Y.**—The Amsterdam Silk Mills has awarded the contract for the construction of a $10,000 addition to its plant to P. B. MACHOLD.

✚**Amsterdam, N. Y.**—The contract has been awarded to JOHN J. TURNER & SONS for the construction of a two-story, 35x40-ft. garage for Harvey Chalmers. The estimated cost is $15,000.

✚**Auburn, N. Y.**—The contract has been awarded to E. K. FENNO, Rosemblum Bldg., Syracuse, N. Y., for the construction of a two-story, 48x100-ft. plant for the Auburn Button Works. The estimated cost is $20,000. G. W. Thompson, Gurney Bldg., Syracuse, N. Y., is Engr.

**Mt. Vernon, N. Y.**—The Benford Mfg. Co. will build an addition to its plant to cost $15,000.

**New York, N. Y.**—(Borough of Brooklyn)—The Grand Union Tea Co., 68 Jay St., will build a ten-story, 51x100-ft. brick and steel factory at Jay and Front St., to cost $100,000.

✚**New York, N. Y.**—(Borough of Manhattan)—STERRETT & GOSS, 103 Park Ave., has been awarded the contract for the construction of a five-story, 150x200-ft. factory for the Gryphon Rubber Co. Frank E. Newman, 1123 Broadway, is Arch.

**New York, N. Y.**—(Borough of Manhattan)—The Manhattan Refrigerating Co., 521 West St., plans the construction of a seven-story, 62x84-ft. cold-storage warehouse at 94-97 Gansevoort St., to cost $80,000.

**Rochester, N. Y.**—C. W. Brownyard, Mill St., will build a one-story, 100x100-ft. factory by day labor. The estimated cost is $20,000.

✚**Rome, N. Y.**—The Rome Brass & Copper Co. has awarded the contract to PARRY & JONES for the construction of a one-story, 140x200-ft. brick and steel addition to its casting shop.

**Syracuse, N. Y.**—Bids are being received by Gaggin & Gaggin, Arch., University Bldg., for the construction of a one-story, 110x140-ft. foundry for the Syracuse Malleable Iron Works, 101 North Geddes St.

✚**Camden, N. J.**—The contract has been awarded to the TURNER CONCRETE STEEL CO., 1713 Sansom St., Philadelphia, Penn., for the construction of a three-story, 96x100-ft. factory for E. & R. Preisendanz. J. C. Jefferis, 1001 Chestnut St., Philadelphia, Penn., is Arch. Noted July 8.

✚**Hackensack, N. J.**—The STEWART CONSTRUCTION CO., 1705 University Ave., New York, N. Y., has been awarded the contract for the construction of a $5,000,000 plant for the American & British Mfg. Co., Bridgeport, Conn. Noted Aug. 19.

✚**Newark, N. J.**—The contract has been awarded to the ESSEX CONSTRUCTION CO., 85 Academy St., for the construction of a one-story, 53x150-ft. chemical factory for the Consolidated Color Chemical Co., Lister Ave. The estimated cost is $15,000. Marshall N. Shoemaker, 9 Clinton St., is Arch.

✚**Plainfield, N. J.**—TALLAMY BROS., 548 West Front St., has been awarded the contract for the construction of a three-story, 75x100-ft. warehouse for the Plainfield Storage Warehouse Co., W. Manning, 106 Depot Pl. The estimated cost is $30,000. Noted Aug. 5.

✚**Lancaster, Penn.**—The National Biscuit Co., care F. G. Johns, 318 North Arch St., has awarded the contract for the construction of a one-story, 39x180-ft. storage building to C. F. & B. G. STAUFFER. The estimated cost is $10,000.

✚**Oil City, Penn.**—(Official)—S. C. BOQUIN has been awarded the contract for the construction of a one-story, 38x150-ft. brick and reinforced-concrete carbarn with a 16x100-ft. wing for the Citizens Traction Co. Day & Zimmerman, 611 Chestnut St., Philadelphia, Penn., is Arch. Noted Apr. 8 and May 13.

**Philadelphia, Penn.**—Bids are being received by Spencer Roberts, Arch., 1524 Chestnut St., for the construction of a six-story, 39x68-ft. factory for Felton, Shibley & Co., 136 North Fourth St. The estimated cost is $50,000.

✚**Philadelphia, Penn.**—WILLIAM STEELE & SONS CO., 1600 Arch St., has been awarded the contract for the construction of a one-story, 107x183-ft. factory for the National Umbrella Frame Co., 30th and Thompson St. The estimated cost is $36,000.

**Philadelphia, Penn.**—Bids are being received by F. P. Woll & Co., Church and Tacony St., for the construction of a one-story, 60x95-ft. factory to cost $25,000.

**Philadelphia, Penn.**—The contract will soon be awarded for the construction of a five- and six-story addition to the packing plant of J. J. Felin & Co., 4142 Germantown Ave. The estimated cost is $90,000.

✚**Philadelphia, Penn.**—(Official)—The contract for the construction of a one-story 142x165-ft. factory at Ninth and Bailey St. for the Wood Mfg. Co. has been awarded to FRANK TURNER, 828 Broadway, Camden, N. J. The estimated cost is $30,000.

**Pittsburgh, Penn.**—The Republic Electric & Mfg. Co., Jenkins Arcade Bldg., plans the construction of a four-story, 54x147-ft. factory to cost $200,000. H. Hornbostel, Pittsburgh Bank for Savings Bldg., is Arch.

**Security, Md.**—The Security Cement & Lime Co. will expend $100,000 for additions to its plant.

**Fayetteville, Tenn.**—(Official)—We are advised by J. E. Sirrine, Engr., Greenville, S. C., that work has been postponed indefinitely on the proposed mill for the Elk Cotton Mills. Noted Aug. 19.

**Memphis, Tenn.**—D. Canale & Co., Front and Huling St., will build a three-story warehouse to cost about $50,000. G. M. Shaw & Co., Tennessee Trust Bldg., is Arch.

✚**Akron, Ohio**—The AKRON STORAGE & CONTRACTING CO., 215 South Broadway, has been awarded the contract for the remodeling of the one-story, 66x88-ft. laundry of Lawrence Halter, 669 South Main St. The estimated cost is $10,000.

✚**Akron, Ohio**—The William Foundry & Machine Co., 62 Cherry St., has awarded the contract for the remodeling of its two-story, 92x125-ft. machine shop to the CARMICHAEL CONSTRUCTION CO., Hamilton Bldg. The estimated cost is $16,000.

**Cleveland, Ohio**—Bids are being received by W. J. Carter, Engr., 1423 Illuminating Bldg., for the construction of a two- three- and four-story, 100x120-ft. addition to the factory of the Van Dorn & Dutton Co., F. W. Sinram, Secy., 2714 East 79th St.

**Cleveland, Ohio**—J. H. Donahey, Hillside Ave., East Cleveland, plans the construction of a three-story, 54x189-ft. factory at 2002 Euclid Ave. The estimated cost is $50,000.

**Cleveland, Ohio**—The Perfection Spring Co., will build an addition to its plant at 6501 Central Ave., to cost $15,000.

**Cleveland, Ohio**—The West Ninth Street Terminal Warehouse Co. will build terminals on West Ninth St. A. A. Mudge, Home Financing Co., Williamson Bldg., is interested. Estimated cost, $2,000,000.

✚**Steubenville, Ohio**—The La Belle Iron Works has awarded the contract for the construction of a $2,000,000 by-product coking plant to the KOPPERS CO., Pittsburgh, Penn. The plant will consist of 96 ovens.

✚**Toledo, Ohio**—SPEAR, MOYLAN & LASLEY has been awarded the contract for the construction of a one-story, 107x145-ft. dry kiln for the Willys Overland Co., Central Ave. The estimated cost is $30,000. Mills, Rhines, Bellman & Nordhoff, 1234 Ohio Bldg., is Arch.

✚**Toledo, Ohio**—(Official)—The Castleton Co. has awarded the contract for the concrete pile foundation for its proposed building at St. Clair and Adams St., to the MacARTHUR CONCRETE PILE & FOUNDATION CO., 11 Pine St., New York, N. Y. Mills, Rhines, Bellman & Nordorff, Ohio Bldg., Toledo, Ohio, is Arch.

**Evansville, Ind.**—C. Shopbell & Co., Arch., 707 Furniture Exchange Bldg., has prepared plans for the construction of a five-story 48x150-ft. factory for the Anchor Supply Co., Water and Vine St. Louis Dana is Pres.

✚**Detroit, Mich.**—The Metal Products Co. has awarded the contract for the construction of a four-story, 60x100-ft. factory to FULLER & CO., 320 Penobscot Bldg. Nettleton & Weaver, 1405 Penobscot Bldg., is Arch.

✚**Detroit, Mich.**—The contract for the construction of a two-story, 131x152-ft. warehouse for A. Y. Malcomson, 116 La Salle Ave., has been awarded to A. A. ALBRECHT & CO., Penobscot Bldg. Malcomson & Higginbotham, 404 Moffat Bldg., is Arch.

✚**Chicago, Ill.**—O. W. ROSENTHAL & CO., 80 East Jackson Blvd., has been awarded the contract for the construction of a six-story, 108x120-ft. printing plant for the Regensteiner Colortype Co., 1201 West Jackson Blvd. A. S. Alschuler, 28 East Jackson Blvd., is Arch. Noted Aug. 19.

✚**Madison, Wis.**—The Gisholt Machine Co. has awarded the contract to the WORDEN-ALLEN CO., Milwaukee, Wis., for the construction of two steel and brick buildings.

✚**Des Moines, Iowa**—The contract for the construction of a five-story, 100x250-ft. brick publishing building at 20th and Grand Ave. for J. H. Pierce has been awarded to the WERTZ CONSTRUCTION CO., 711 Mulberry St. The estimated cost is $250,000.

**Wichita, Kan.**—The Wichita Creamery Co., 202 North Handley Ave., will soon award the contract for the construction of a three-story, 50x120-ft. reinforced-concrete and brick creamery to cost $20,000. G. E. Moser, Chicago, Ill., is Arch. B. F. Copley is Pres.

**Scottsbluff, Neb.**—It is reported that the Scottsbluff Creamery Co. plans the construction of a $15,000 plant.

✚**Independence, Mo.**—The contract has been awarded to WILLIAM CRICK, 1601 West Short St., for the construction of a two-story 50x165-ft. reinforced-concrete garage at 314-16 West Lexington Ave. for Smith Bros., 214 West Maple St., at $10,000.

**Argenta, Ark.**—The Arkansas Fertilizer Co., will build a sulphuric acid plant, to cost $90,000.

**Wiley, Colo.**—The Denver Alfalfa Milling Co. plans the construction of a mill to cost $50,000.

✚**Portland, Ore.**—The Dock Commission has awarded the contract for the construction of a 176x330-ft. reinforced-concrete warehouse to the BRAYTON ENGINEERING CO., at $86,990. Other bids were: Anton Teller, $88,684; J. M. Ambrose, $106,895; Parker & Banfield, $100,884; Freiburg, McLennan Co., $102,837; Palmer, Ellis & Co., $87,133; Portland Bridge & Building Co., $91,434; Beers Building Co., $87,474; John Almeter, $94,215; Boyajohn-Arnold Co., $93,829.

✚**Regina, Sask.**—(Official)—The Robert Simpson Co., Queen and Yonge St., Toronto, Ont., has awarded the contract for the construction of a $150,000 warehouse to the WELLS BROS. CO., 53 West Jackson Blvd., Chicago, Ill. Noted Aug. 12 and 19.

## FEDERAL GOVERNMENT WORK

**Alterations**—Boston, Mass.—Bids will be received until 3 p.m., Sept. 14, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for alterations, and partitions at the U. S. Custom House, Boston.

**Building**—Boston, Mass.—Bids will be received until 3 p.m., Oct. 8, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for constructing the U. S. appraisers' stores at Boston.

✚**Buildings**—Ft. Mifflin, Penn.—The contract has been awarded to CHARLES GILPIN, Philadelphia, at $60,000, for constructing four magazine buildings at Ft. Mifflin. Noted Aug. 26.

**Custom House**—Wilmington, Del.—Bids will be received Oct. 9, according to press reports, for the construction of the U. S. custom house at Wilmington.

**Building**—Indian Head, Md.—Bids were received Aug. 28, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of one steel frame cotton storehouse covered with corrugated iron, concrete floor and foundation from: John H. Nolan Construction Co., Washington, D. C., $4353 and Penn Bridge Co., Washington, D. C., $4320. Noted Aug. 5.

**Desks**—Washington, D. C.—Bids will be received until 3 p.m., Sept. 15, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for furnishing bronze and wood desks.

**Power Plant**—Washington, D. C.—Bids will be received until Nov. 17 by the Treasury Department, Washington, for constructing and equipping a power plant at the foot of 14th St. The appropriation is $1,494,104.

★**Retaining Wall**—Washington, D. C.—Bids will be received until 2 p.m., Sept. 20, by the Commissioner of Public Buildings and Grounds, Washington, for constructing a retaining wall along the west side of Meridian Hill Park.

★**Steel Derrick Boat**—Washington, D. C.—Bids were received Aug. 23 by the U. S. Engineer for furnishing a steel derrick boat as follows: Spedden Shipbuilding Co., Baltimore, Md., $43,770; Ellicott Machine Corporation, Baltimore, Md., $34,742; Dravo Contracting Co., Pittsburgh, Penn., $23,750 and Valk & Murdock. Noted July 20.

**Vessel**—Washington, D. C.—Bids were received Aug. 25, by the Coast and Geodetic Survey, Dept. of Commerce, Washington, D. C., for the construction of a survey vessel for the Survey as follows: Spedden Shipbuilding Co., Baltimore, Md., $266,700; Ellicott Machine Corporation, Baltimore, Md., $224,800; Anderson Steamboat Co., Seattle, Wash., $211,790; Pusey & Jones, Wilmington, Del., $242,472; Manitowoc Shipbuilding and Dry Dock Co., Manitowoc, Wis., $189,000 and Seattle Construction & Dry Dock Co., Seattle, Wash., $210,000. Estimates were also submitted by four United States Navy Yards but these do not provide for bond or for liquidated damages: Philadelphia, Penn., $244,245; Portsmouth, N. H., $163,250; Puget Sound, Wash., $229,784 and Norfolk, Va., $220,000. Bids were opened at the same hour at San Francisco.

✚**Post Office**—Wellsburg, W. Va.—The contract has been awarded to the COLONIAL CONSTRUCTION & SUPPLY CO., Charlottesville, Va., at $41,500, for constructing the post office. Noted Aug. 19.

**Buildings**—Port Royal, S. C.—Bids were received Aug. 28 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of a guardhouse, six double quarters for noncommissioned and petty officers, brick wall for command barracks, garbage incinerator and nine sleeping porches at the Naval Disciplinary Barracks, Port Royal: A. S. Bacon & Sons, 2 Bay St., E., Savannah, Ga. $41,075; Simons-Mayrant Co., Peoples Office Bldg., Charleston, S. C., $44,287; Algernon Blair, 11 South Lawrence St., Montgomery, Ale., $38,685; Newport Contracting & Engineering Co., Newport News, Va., $34,676; Cox & Doke, 303 34th St., Savannah, Ga., $35,151; N. Christenson & Son, Beaufort, $66,666; R. W. Wimbish, 1106 Bull St., Savannah, Ga., $43,515 and Henry Monk, 314 West Belmont St., Pensacola, Fla., $49,040. Noted Aug. 5.

★**Barges**—Vicksburg, Miss.—The bid of the American Bridge Co., Pittsburgh, Penn., at $7500 per barge for furnishing six steel barges has been recommended for acceptance. Noted July 22.

★**Miscellaneous Work**—Marblehead, Ohio—Bids will be received until 2 p.m., Sept. 21, by the U. S. Coast Guard, Treasury Dept., Washington, D. C., for constructing a boathouse, crew's quarters and launchway, moving present building and removing old launchway at the Marblehead Coast Guard Station.

**Lumber**—Detroit, Mich.—Bids will be received until [illegible] p.m., Sept. 9, by the Lighthouse Inspector, Detroit, for furnishing about 75,000 ft. of hardwood timber for Charity Island Lighthouse Reserve.

✚★**Dredging**—Chicago, Ill.—The contract has been awarded to the FITZ SIMONS & CONNELL DREDGE & DOCK CO., Chicago, at $31,651 for dredging in Calumet River. Noted July 29.

**Pipe**—Newell, S. D.—Bids will be received until 4 p.m., Sept. 16, by the U. S. Reclamation Service, Newell, for constructing approximately 3285 ft. of 60-in. and 450 ft. of 24-in. continuous wood stave pipe for the Belle Fourche Project.

★**Canal Work**—St. Ignatius, Mont.—Bids were received Aug. 18 for constructing (a) laterals and (b) sublaterals as follows: Two Miracle Concrete Corporation, Kalispell, (a) and (b) $33,389; Wilson Bros., Polson, (a) $10,945; Percy M. Ross, Polson, (a) part, $4168 and J. E. Hilton, Billings, (a) and (b) $30,254. Noted July 22.

✚**Post Office**—Cuero, Tex.—The contract for the construction of a post office at Cuero has been awarded to RICHARDSON ENGINEERING & CONSTRUCTION CO., Bainbridge, Ga., at $53,470. Noted May 13 and July 1.

**Buildings**—Isabel, Tex.—Bids were received Aug. 28, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the construction of power house and one operator's quarters at the Naval Radio Station, Isabel, as follows: C. O. Eure, Hattiesburg, Miss., $12,561; Newport Contracting and Engineering Co., Newport News, Va., $14,200; James McCoy, Brownsville, $9500. Noted July 22.

**Mechanical Equipment**—Tulsa, Okla.—Bids will be received until 3 p.m., Sept. 30, by James A. Wetmore, Act. Superv. Arch., Treasury Dept., Washington, D. C., for installing mechanical equipment, except lighting fixtures, at the U. S. post office.

★**Post Office**—Grand Junction, Colo.—Bids were received Aug. 24, by the Acting Supervising Architect, Treasury Dept., Washington, D. C., for the construction of a post office at Grand Junction, (a) limestone, (b) sandstone: George W. Stiles Construction Co., Chicago, Ill., (a) $112,294; George A. Whitmeyer Co., Ogden, Utah, (a) $108,006; William O'Neill & Son Co., Faribault, Minn., (a) $112,819; Norman Ker, New York, N. Y., (a) $121,000, (b) $128,000; King Lumber Co., Charlottesville, Va., (a) $96,140, (b) $100,000; Campbell Building Co., Salt Lake City, Utah, (a) $107,500, (b) $112,500; Dieter & Wenzel Construction Co., Wichita, Kan., (a) $100,821; J. H. Wiese, Omaha, Neb., (a) $109,723; M. Yeager & Sons, Danville, Ill., (a) $108,943, (b) $112,943. Noted July 22.

**Cylinder Gates**—Elephant Butte, N. M.—We have been advised that bids will not be opened on Sept. 2 for furnishing cylinder gates for spillway at the Elephant Butte Dam. The work will be readvertised. Noted Aug. 19.

✚**Dredging**—Bremerton, Wash.—The contract for dredging about 20,000 cu.yd. of material at the Puget Sound Navy Yard has been awarded to ERICKSON CONSTRUCTION CO., Seattle, at 60c. per yd. Noted Aug. 19.

**Stable**—Bremerton, Wash.—Bids will be received until 11 a.m., Sept. 25, by William M. Smith, Act. Ch. of Bureau, Bureau of Yards and Docks, Washington, D. C., for constructing a stable at the Puget Sound Navy Yard.

**Engines**—Portland, Ore.—Bids will be received until 2 p.m., Sept. 20, by the Lighthouse Inspector, Portland, for furnishing oil engines and compressors for Slip Point Station.

**Miscellaneous Supplies**—Panama—Bids will be received until 10:30 a.m., Sept. 10, by Maj. F. C. Boggs, Gen. Pur. Agt., Panama Canal, Washington, D. C., for furnishing miscellaneous supplies.

**Elevators**—Pearl Harbor, Hawaii—Bids were received Aug. 28 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for the installation of three hydropneumatic freight elevators at the Naval Station, Pearl Harbor, Hawaii: Otis Elevator Co., Washington, D. C., $8484; A. Kleckhefer Elevator Co., Milwaukee, Wis., $8600. Noted Aug. 12.

## MISCELLANEOUS

**Retaining Wall**—Quincy, Mass.—The Fore River Shipbuilding Co. will build a sea wall 1200 ft. long and 40 ft. high.

✚**Barge Canal Work**—Albany, N. Y.—The contract for the construction of the terminal dock, under Contract 46, at Weedsport, has been awarded to SCOTT BROS., Rome, N. Y., at $13,658. Noted Aug. 26.

**Barge Canal Work**—Albany, N. Y.—(Official)—Bids will be received until Sept. 9 by W. W. Witherspoon, Capitol, Albany, for improving Three Mile Harbor in Suffolk County and the dredging of Sawyer Creek. Bids will be also opened at the same time for furnishing and delivering about 2,000,000 ft. of timber and plank.

**Retaining Wall**—Buffalo, N. Y.—The Mayor has signed a resolution authorizing a bond issue of $50,000 for the construction of a retaining wall at the foot of Ferry St.

**Swimming Pool**—Buffalo, N. Y.—The city plans to construct a swimming pool at the municipal water-works plant. The estimated cost is $10,000.

✚**Jetty**—Atlantic City, N. J.—The contract for lengthening the jetty at the foot of Tennessee Ave. has been awarded to the ATLANTIC CITY CONSTRUCTION & SUPPLY CO., at $13,427. Noted Aug. 26.

★**Hardware**—Newark, N. Y.—(Official)—Bids will be received by Mrs. Sarah F. S. Armstrong, Pres., Board of Trustees, New York State Custodial Asylum for Feeble Minded Women, until noon, Sept. 15, for furnishing hardware for the cottage and hospital building.

**Jetties and Bulkhead**—New York, N. Y.—(Borough of Queens)—(Official)—Bids will be received by Cabot Ward, Dept. of Parks, Municipal Bldg., Manhattan, until 3 p.m., Sept. 9, for the construction of timber jetties and bulkhead, also extending existing jetties to new penetration on the beach at Seaside Park, Rockaway.

**Retaining Wall and Fencing**—Aspinwall, Penn.—Bids will be received by S. R. Chase, Clk., 230 First St., until 7:30 p.m., Sept. 6, for the construction of a concrete retaining wall, and 250 lin.ft. of iron-pipe fencing. Specifications may be obtained of A. G. Shaw, 808 Magee Bldg., Pittsburgh, Penn., Engr.

**Coal Pocket**—Philadelphia, Penn.—The Koelle, Speth & Co., will erect a 34x124-ft. coal pocket on Water St., to cost $8000.

★✚**Subway**—Philadelphia, Penn.—(Official)—The contract for constructing the subway and station, under Filbert St., City Hall and South Penn Sq., has been awarded to the KEYSTONE STATE CONSTRUCTION CO., Penn Bldg., at $1,700,000 (lump sum bid). Noted Aug. 26.

✚**Subway**—Philadelphia, Penn.—(Official)—The contract for constructing foundations in Front St., Kensington and Frankford Ave. from Callowhill St. to Unity St. has been awarded to JAMES D. DORNEY, 1204 East Montgomery Ave., at $142,590 (lump sum bid). Noted Aug. 26.

✚**Levee**—Greenville, Miss.—The Board of Mississippi Levee Commissioners awarded contracts for the construction of levees as follows: Mayersville to Baleshed enlargement, 262,000 cu.yd. to R. T. CLARK & CO., at $44,671; Upper & Lower Avon banquette to BURT, BOND & McMURRAY, at $6020; Moon Lake enlargement, 200,000 cu.yd. to R. T. CLARK & CO., at $34,100; Upper Vermillion Spur enlargement to R. T. CLARK & CO., at $5000; new Shiloh levee, 200,000 cu.yd., to W. T. & E. M. LAWRENCE & CO., at $29,780. Noted Aug. 12.

**Wharf**—New Orleans, Miss.—Plans have been prepared for the construction of a wharf between First St. and Sixth St. The estimated cost is $69,000. Bids will be advertised for as soon as plans are approved by Board of Port Commissioners.

✚**Levees**—New Orleans, La.—The State Board of Engineers awarded the contract for the enlargement of Hermitage Levee, Parish of Iberville, to the HAMERON WHITE CO., LTD., at 19.9c. per cu.yd. The total cost amounted to about $29,850.

✚**Drainage**—Selmer, Tenn.—The Directors of Cypress Creek Drainage District have awarded the contract for the construction of a canal 8.4 miles long to the SWAMP DREDGE CO., Tupelo, Miss., at 8¼c. per cu.yd. Noted Aug. 5.

**Retaining Wall**—Cleveland, Ohio—Bids will be received by the Commissioner of Purchases and Supplies, Room 511, City Hall, until noon, Sept. 8, for the construction of a retaining wall in Rockefeller Park. Specifications may be obtained of the Park Engineer, 318 City Hall.

✚**Breakwater**—Conneaut, Ohio—The contract for the construction of a pier head and rubble mound breakwater at Conneaut Harbor has been awarded to the COAST & LAKES CONTRACTING CORPORATION, Cleveland, at $99,007.

✚**Ditch**—Richmond, Ind.—The contract for the construction of the Nettle Creek Ditch has been awarded to HORTON & MOSELEY, Marquette Bldg., Chicago, Ill., at $11,390. Other bidders were: Henry P. Johnson, Sterling, Ill., $12,330; Clyde A. Walb,. La Grange, $12,708; Marbaugh Bros., Monterey, $12,360; T. F. Foohey Dredging Co., Fort Wayne, $2360. Noted July 29.

✚**Drainage**—Fairbury, Ill.—According to press reports, the contract for constructing a drainage ditch for Momence and Yellow Head Drainage District has been awarded to H. & J. A. McWILLIAMS, Chicago. The estimated cost is $38,000.

**Drainage**—Jefferson, Iowa—The contract for furnishing tile, to be used in drainage work, has been awarded to the JEFFERSON CEMENT PRODUCTS CO., Jefferson, Iowa, at $58,555. Other bidders were: McHose Co., Boone, Iowa, $61,289; Cement Products Co., Salt Lake City, Iowa, $62,077; Lehigh Clay Products Co., $63,475. S. G. Nelson is Engr.

**Drainage**—Mount Aye, Iowa.—The Ringold County Board of Supervisors, according to press reports, plan to drain 7952 acres along Platte River.

**Ditch**—Breckenridge, Minn.—Bids will be received by P. E. Truax, County Audr., until Sept. 14, for constructing ditch No. 6 at an estimated cost of $12,364.

✚**Ditch**—Montevideo, Minn.—Contracts have been awarded for the construction of County Ditch No. 18 to P. HALSEY, Willmar, at $5494 for open work and to the MAYNARD TILE, STONE & CEMENT CO., Maynard, at $19,494 for tile work. Noted Aug. 12.

**Ditch**—Redwood Falls, Minn.—Bids were received Aug. 12, for the construction of County Ditch No. 20 as follows: James Girding, Fox Lake, $36,957; Kircher Bros., St. Paul, $37,300; Parish & Sedgley, Worthington, $37,525. L. P. Larson is County Audr.

**Drainage**—Wichita, Kan.—J. J. Jones and A. E. Munich, Wichita are forming a company for the purpose of draining the Big Slough west and south of Wichita. The cost of the work is estimated at $25,000.

✚**Drainage**—Tekamah, Neb.—The contract for the construction of about 1,000,000 cu.yd. of ditches in the Burt-Washington Drainage District has been awarded to W. E. CALLAHAN CO., at 6.45c. per cu.yd., and EDWARD PETERSEN CO., at 6.48c. per cu.yd. Other bidders were: Stevens & Long, 8.2c.; Pollard, Campbell & Crane, 7.5c.; Phalen & Shirley, 6.7c.; I. C. D. Campbell, 7.73c.; R. S. Morrow, Boyce & Briggs, 7.5c.; J. H. Flick, 7.2c.; Munn Riese Co., 7.5c. Noted July 29.

**Drainage**—Poplar Bluff, Mo.—Surveys are being made and bids will soon be called for the construction of drainage ditches in Ripley County. John H. Gleason is Engr.

**Dock**—St. Louis, Mo.—The Mayor's Commission has voted to recommend an appropriation of $250,000, for the construction of a dock.

✚**Drainage**—Marion, Ark.—Press reports state that the contract for the construction of 5,022,000 cu.ft. of ditches has been awarded by the Commissioners of Drainage District No. 2 of Crittenden County to McWILLIAM BROS., at 7.59c. per cu.yd.

✚**Drainage**—Pine Bluff, Ark.—According to press reports, the contract for drawing about 40,000 acres of land in the Waterloo Drainage District, has been awarded to STEANBERG BROS., Pine Bluff. The work is estimated to cost $235,000.

**Drainage**—Alief, Tex.—Bids will be received until 10 a.m., Sept. 10, by H. L. Washburn, County Audr, Houston, for the construction of drainage ditches; also for cleaning present ditches.

**Drainage**—Bay City, Tex.—It is reported that the County Commissioners have engaged E. N. Gustafson, Engr., for making surveys for draining about 10,000 acres in Drainage District No. 6.

✚**Dredging**—Galveston, Tex.—Press reports state that the contract for dredging, bulkheading and grading preparatory to the construction of the $50,000 dry dock on Pelican Island, has been awarded to JOHN JACOBSON, Texas City.

**Drainage**—Crook, Colo.—The city contemplates the construction of a drainage system to reclaim about 3600 acres of land.

**Drainage**—Las Animas, Colo.—It is reported that about 14 miles of drainage ditches will be constructed near here for the Mutual Carey Irrigating Co.

**Ditch**—Phœnix, Ariz.—J. B. Girand, City Engr. has completed plans for removing town ditch which requires carrying ditch under Van Buren St. from Seventh St. to Seventh Ave., 5400 ft.; three different types of construction are called for in the plans. A concrete conduit, 7 ft. diam., covered 4 ft.; an ingot iron conduit and a wood stave conduit.

**Canal Work**—Selah, Wash.—It is reported that the Directors of the Selah Canal Co. have ordered an assessment of $30,000 to construct steel flumes, ditches, etc.

**Elimination of Grade Crossing**—Portland, Ore.—The Oregon, Washington R.R. & Navigation Co. plans to eliminate the grade crossing from Sullivans Gulch to the city limits. The estimated cost is $750,000.

**Steamer**—Portland, Ore.—Plans are being prepared for the construction of a 120-ft. steamer for Captain Smith, S. S. "Sacajawea," Portland, Ore. The estimated cost is $20,000.

★**Bulkhead Shed**—San Juan, Porto Rico—(Official)—Bids will be received by Manuel V. Momenech, Chn., San Juan Harbor Board, until 11 a.m., Oct. 1, for the construction of a bulkhead shed.

## BUILDINGS

*Other items relative to Building Construction will be found under the following headings: "Industrial Works;" "Federal Government Work" and "Miscellaneous"*

✚**Holyoke, Mass.**—The contract for the construction of a two-story, 120x125-ft. high school has been awarded to the CASPER RANGER CONSTRUCTION CO., at $73,816.

**Bridgeport, Conn.**—The Sons of St. George plan the construction of a three-story, 60x133-ft., brick home on Stratford Ave. The estimated cost is $40,000. Ernest G. Southey, 983 Broad St., is Arch.

**Albany, N. Y.**—Albany Chapter No. 12 of the Eastern Star plans the construction of a three-story chapter house at Lark St. and Hudson Ave., to cost $40,000. James S. Shattuck is Arch.

**New York, N. Y.**—(Borough of Brooklyn)—Plans are being prepared by N. Serracino, 1170 Broadway, New York, N. Y. (Borough of Manhattan), for the construction of a hotel for the Brighton Beach Development Co. at Brighton Beach. Noted July 29.

✚**Little Falls, N. Y.**—(Official)—The contract for the construction of a four-story bank and office building for the National Herkimer County Bank has been awarded to WELLS BROS. CO., 366 Fifth Ave., New York, N. Y., at $115,000. Noted July 15.

**New York, N. Y.**—(Borough of Brooklyn)—Plans have been prepared by W. T. McCarthy, Arch., 16 Court St., for the construction of two four-story apartment buildings on Ave. C and East Fourth St., for the De Haven Building Corporation. The estimated cost is $90,000.

**New York, N. Y.**—(Borough of Manhattan)—Edmund K. Stallo and daughters plans the construction of a 31-story hotel on 42d St., between Broadway and Seventh Ave.

**Rochester, N. Y.**—Plans are being prepared by Foster & Gade, 15 West 38th St., New York, N. Y., for the construction of a building for the Rochester Chamber of Commerce. The estimated cost is $200,000.

**Rochester, N. Y.**—Bids will be received for the construction of a Y. M. C. A. building at Lake and Driving Park Ave. The estimated cost is $50,000. James G. Cutler is Chn. of Building Com. and Claude Bragdon is Arch. Noted June 24 and July 29.

**Schenectady, N. Y.**—The Masonic Hall Association has purchased the site at 828-830 State St., and will build a $100,000 temple.

✚**Syracuse, N. Y.**—The contract for the construction of the Masonic Temple on Montgomery St. has been awarded to FREDERICK A. CASWELL, Watertown, N. Y., at $97,000.

✚**Syracuse, N. Y.**—(Official)—The contract for the construction of the Delanare School has been awarded to the KING LUMBER CO., Charlotte, Va., at $221,122. Noted Aug. 12.

**Asbury Park, N. J.**—Plans are being prepared for the construction of a hotel for J. A. Havercamp.

✚**Atlantic City, N. J.**—The contract for the construction of a six-story, 112x176-ft., reinforced-concrete addition to the Hotel Rudolph, New Jersey Ave. and the Boardwalk, has been awarded to ALEXANDER CHAMBLAY, 243 North Tenth St., Philadelphia, Penn. E. M. Henderer and V. B. Smith are Archs.

**Atlantic City, N. J.**—Bids will be received Sept. 8 for the construction of a three-story, brick school. Stout & Riebenack is Arch.

**Hopewell, N. J.**—Revised plans are being considered by the Board of Education for the construction of an addition to the township high school.

**Jersey City, N. J.**—Bids will be received until 3 p.m., Sept. 9, by the Board of Chosen Freeholders of Hudson County for the construction of a county jail. Walter O'Mara is Clk.

**Passaic, N. J.**—The Passaic General Hospital plans to construct a new sanitarium. The estimated cost is $300,000

## RAPID TRANSIT SYSTEM—NEW YORK, N. Y.

Section Nos. 1 and 2—Route Nos. 16 and 18

Bids were received Aug. 18 by the Public Service Commission for the station finish work for parts of the Seventh Ave., Lexington Ave. and White Plains Rd. Transit R.R., Section Nos. 1 and 2, Route Nos. 16 and 18 from: (A) Altoria Realty & Construction Co., 3 East 44th St., (B) Snare & Triest Co., 233 Broadway, (C) Station Construction Co., 407 44[illegible] St., Brooklyn, (D) Marble Arch Co., 216th St. and Broadway, (E) William H. Egan, 147 East 25th St., (F) Connors Bros. Co., 644 West 88th St., (G) Post & McCord, 101 Park Ave. The item bids were as follows:

| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 6000 lin.ft. stairways—wood, street to mezzanine | $1.00 | $1.00 | $0.85 | $0.90 | $1.25 | $0.90 | $1.03 |
| 10,800 lin.ft. stairways—wood, mezzanine to platform | 1.00 | 1.00 | .86 | .90 | 1.25 | .85 | 1.03 |
| 8000 lin.ft. stairways—iron, mezzanine to platform | 2.624 | 2.80 | 2.18 | 1.90 | 2.85 | 2.60 | 2.21 |
| 2000 sq.ft. stair landings—wood, straight (street to mezzanine) | 1.08 | 1.00 | .85 | .90 | 1.05 | 1.10 | 1.14 |
| 1400 sq.ft. stair landings—offset (street to mezzanine) | 1.08 | 1.10 | .85 | .90 | 1.05 | 1.20 | 1.14 |
| 1900 sq.ft. stair landings—offset (mezzanine to platform) | 1.13 | 1.10 | .90 | .90 | 1.15 | 1.20 | 1.19 |
| 2050 sq.ft. straight or offset with steel checkered platform | 2.25 | 2.00 | 1.78 | 1.90 | 2.15 | 2.35 | 2.21 |
| 950 lin.ft. concrete stairways, self supporting stairways | 2.00 | 1.10 | .96 | 3.00 | 1.25 | 1.60 | 2.00 |
| 900 sq.ft. concrete stairways, self supporting stairway landings | .80 | .80 | .50 | .50 | .40 | .40 | .60 |
| 50 cu.yd. concrete stairways, concrete walls under street, Section 295 | 6.00 | 16.00 | 18.00 | 10.00 | 15.00 | 13.00 | 19.00 |
| 50 ton steel columns hangers, etc., supporting stairways | 88.00 | 80.00 | 83.00 | 70.00 | 90.00 | 80.00 | 80.00 |
| 2400 sq.ft. concrete street landings | .50 | .90 | .75 | .40 | .90 | .70 | .30 |
| 70 cu.yd. concrete foundations for columns | 10.00 | 16.00 | 8.00 | 6.00 | 15.00 | 11.00 | 9.00 |
| 30 concrete or brick manholes | 36.00 | 55.00 | 25.00 | 150.00 | 50.00 | 45.00 | 53.00 |
| 10 cu.yd. rock excavations | 10.00 | 10.00 | 10.00 | 5.00 | 15.00 | 5.00 | 9.00 |
| 10,600 lin.ft. oak handrails | .48 | .55 | .40 | 1.00 | .55 | .46 | .49 |
| 11,500 sq.ft. canopies over stairways (street to mezzanine) | .65 | 1.70 | .70 | .80 | .68 | .75 | .83 |
| 48 canopies over street landings | 70.00 | 75.00 | 175.00 | 50.00 | 75.00 | 125.00 | 55.00 |
| 193,000 sq.ft. canopies over side train platforms | .40 | .37 | .41 | .40 | .36 | .47 | .48 |
| 56,000 sq.ft. canopies over island train platforms | .40 | .35 | .40 | .30 | .34 | .47 | .44 |
| 15,500 sq.ft. canopies, special over side train platforms (concrete stations) | .42 | .40 | .44 | .90 | .38 | .48 | .44 |
| 3900lin.ft. type "A" railings—stairs, street to mezzanine | 3.00 | 4.00 | 3.91 | 4.00 | 3.70 | 3.40 | 3.87 |
| 3500 sq.ft. type "B" grille railings on stairs | 1.00 | 1.00 | 1.30 | 1.10 | 1.10 | 1.15 | 1.59 |
| 200 lin.ft. type "C" railing | 3.00 | 4.00 | 2.91 | 4.00 | 3.50 | 3.57 | 2.87 |
| 350 lin.ft. type "D" railing | 3.00 | 4.00 | 3.01 | 4.00 | 5.00 | 3.30 | 2.97 |
| 3200 lin.ft. "E" railing around stair wells | 3.57 | 4.40 | 4.51 | 4.00 | 4.70 | 3.57 | 4.47 |
| 1000 lin.ft. "F" low level railings | 3.57 | 5.00 | 3.41 | 4.00 | 5.00 | 5.60 | 3.37 |
| 3300 sq.ft. "G" high railings | .75 | .90 | .84 | 1.00 | 1.20 | .60 | .84 |
| 8800 lin.ft. "K" train platform railings | 3.57 | 4.00 | 4.51 | 3.50 | 4.00 | 3.57 | 4.47 |
| 10 additional high posts 2½ in. tubing | 8.50 | 13.00 | 9.05 | 20.00 | 9.00 | 9.00 | 9.00 |
| 350 lin.ft. pipe railings | 1.10 | 1.10 | 1.03 | 2.00 | 2.00 | 1.30 | 1.16 |
| 40 metal screens for stave recesses | 10.00 | 12.00 | 12.00 | 15.00 | 10.00 | 10.00 | 13.00 |
| 800 lin.ft. type "L" bevel railings | 3.05 | 3.75 | 3.41 | 3.00 | 3.40 | 3.25 | 3.37 |
| 100 lin.ft. type "M" service railings | 3.57 | 5.00 | 4.00 | 5.00 | 5.00 | 4.75 | 3.91 |
| 350 lin.ft. type "O" railings newel posts on stairways | 3.25 | 4.40 | 4.16 | 5.00 | 4.00 | 3.50 | 4.12 |
| 200 lin.ft. type "P" railings newel posts on stairways | 3.25 | 4.40 | 3.96 | 5.00 | 4.00 | 3.50 | 3.92 |
| 3 grilles at Bedford Park boulevard station | 10.00 | 25.00 | 50.00 | 20.00 | 15.00 | 25.00 | 22.50 |
| 15,000 lin.ft. wind screen drop sash train platform | 4.92 | 4.90 | 5.10 | 4.50 | 8.50 | 5.20 | 6.00 |
| 500 standards on railings on train platforms | 15.00 | 16.00 | 23.20 | 18.00 | 20.00 | 27.00 | 15.10 |
| 75 free standing standards on island platform | 23.00 | 30.00 | 28.30 | 22.00 | 32.00 | 42.00 | 32.16 |
| 315,000 sq.ft. wood floor for train platform | .20 | .22 | .20 | .22 | .59 | .22 | .22 |
| 18,300 sq.ft. 8-in. concrete slab floor, including water proofing, etc. | .58 | .60 | .65 | .70 | .60 | .57 | .71 |
| 14,600 sq.ft. 11½-in. concrete slab floor, including water proofing | .68 | .70 | .75 | .75 | .80 | .72 | .83 |
| 100 cu.yd. concrete encasing columns, beams and girders | 1.00 | 1.00 | .70 | 1.00 | 1.00 | 1.25 | .60 |
| 200 cu.yd. concrete copings | .95 | .80 | .55 | 1.50 | 1.00 | 1.00 | .90 |
| 200 sq.ft. additional cement finish, section 148 | .15 | .25 | .15 | .30 | .20 | .10 | .16 |
| 1600 lin.ft. platform edge construction supported on steel angles | .79 | .90 | 1.72 | .50 | .80 | 1.60 | .80 |
| 2000 lin.ft. platform edge construction supported on wood facia | .20 | .80 | 1.62 | .50 | .80 | .60 | .80 |
| 5000 sq.ft. water proofing protective concrete wood, etc., existing concrete slab | .41 | .28 | .22 | .40 | .40 | .30 | .40 |
| 53,000 sq.ft. asphalt floor, including wood floor | .30 | .30 | .23 | .50 | .40 | .30 | .42 |
| 100 sq.ft. 8-in. concrete slab 3-in. finish | .60 | .60 | 1.00 | 1.00 | .60 | .50 | .57 |
| 8600 sq.ft. 6-in. concrete slab, 3-in. finish | .45 | .50 | .50 | .50 | .50 | .45 | .54 |
| 100 sq.ft. 11½-in. concrete slab, 3-in. finish | .70 | .70 | 1.00 | .60 | .80 | .65 | .72 |
| 6500 sq.ft. cement wainscot or base | .17 | .22 | .12 | .20 | 20 | .18 | .20 |
| 36,500 sq.ft. concrete track floor over mezzanine, including water proofing rods, etc | .45 | .46 | .55 | .52 | .45 | .55 | .71 |
| 1200 sq.ft. flooring for passageways | .30 | .25 | .20 | .50 | .30 | .23 | .40 |
| 620 ferrules for mezzanine roof, including flanges | 1.80 | 2.50 | 2.38 | 2.00 | 2.50 | 2.20 | 3.00 |
| 30 trap doors or scuttles | 2.00 | 20.00 | 10.00 | 3.00 | 25.00 | 60.00 | 20.00 |
| 54,000 sq.ft. 3-in. cement floor finish | .12 | .12 | .13½ | .15 | 12 | .12 | .15½ |

**Wildwood, N. J.**—Bids will be received until Sept. 14 for the construction of a three-story, brick school. Clyde S. Adams is Arch.

**Allentown, Penn.**—The contract will soon be awarded for the construction of a six-story brick and stone Y. M. C. A. building, estimated to cost $100,000. Louis E. Jallade, 37 Liberty St., New York, N. Y., is Arch.

**✚Freehold, Penn.**—The contract for the construction of a church for the St. Johns Slovak Congregation has been awarded to ANDREW BRESLIN, Summit Hill, at $50,000.

**Mount Union, Penn.**—The contract will soon be awarded by George W. Morgan, Borough Secy., for the construction of a 2½-story, brick and concrete municipal building on Market St. D. W. Dillman, 47-49 Altoona Trust Bldg., Altoona, Penn., is Engr.

**✚Natrona, Penn.**—GEORGE SCHENK & CO., Butler, Penn., has been awarded the contract for the construction of a school for Harrison Township. Noted Apr. 22 and June 17.

**✚Philadelphia, Penn.**—CRAMP & CO., Denckla Bldg., has been awarded the contract for the construction of a 13-story, 48x230-ft. office building at 1416 Chestnut St., for the Franklin National Bank. The estimated cost is $600,000.

**Washington, Penn.**—Bids will be received until 9 a.m., Sept. 6, by Adjutant General Thomas J. Stewart, Harrisburg, for the construction of an armory on West Malden St.

**✚Guilford, Md.**—WALTER E. BURNHAM, Baltimore, Md., has been awarded the contract for the construction of a school, at $51,337. Smith & May is Arch.

**Madison, W. Va.**—Bids have been received for the construction of a courthouse as follows: George F. Gates, Charleston, $190,000; Acme Construction Co., $120,990; P. Q. Shrake & Son, $96,200; Dayton & Francis, $128,450; King Lumber Co., $118,400; J. L. Crouse, $126,159; Longest & Tessier Co., $120,000; Tyree & Thomas, $137,393; Peter C. Minnotti, Logan, $99,875. Noted Aug. 19.

**✚Louisville, Ky.**—The contract for the construction of a five-story office building has been awarded to the SELDENBRECK CONSTRUCTION CO., St. Louis, Mo. The estimated cost is $100,000. Noted Aug. 19 and 26.

**Cincinnati, Ohio**—Plans have been prepared by Elzner & Anderson, Arch., for the construction of a 12-story Y. M. C. A. building. The estimated cost is $405,000.

**Cleveland, Ohio**—The First Church of Christ contemplates the construction of a church at Euclid Ave. and East 111th St. The estimated cost is $125,000.

**Cleveland, Ohio**—Bids will soon be received for the construction of a three-story building at Euclid Ave. and East 30th St. for the Adams-Oakland Co. The estimated cost is $50,000. W. S. Ferguson Co. is Arch. and H. M. Adams is Mgr.

**✚Cleveland, Ohio**—The contract for the construction of an addition to the Hotel Statler has been awarded to the GEORGE W. FULLER CO., 111 Broadway, N. Y., $300,000.

**✚Cleveland, Ohio**—The contract for the construction of a two-story building for the Ohio State Telephone Co. has been awarded to the RUTHERFORD CO., 2160 East 18th St., Cleveland. The estimated cost is $50,000.

**Cleveland, Ohio**—The city contemplates the construction of a jail. The estimated cost is $1,000,000.

**Columbus, Ohio**—Preliminary plans are being prepared by Richards, McCarty & Bulford, Arch., Columbus, for the construction of a bank and office building at Gay and High St. for the Citizens Trust & Savings Co., 16 East Broad St.

**Findaly, Ohio**—Bids will be received until 1 p.m., Sept. 15, by Jean C. Copeland, Clk. Bd. of Hamcosk County, for the sale of $100,000 in bonds. The proceeds will be used for the construction of a county infirmary building.

**Fremont, Ohio**—Plans are being prepared for the construction of a temple for the Masonic Lodge. The estimated cost is $75,000.

**Lorain, Ohio**—The Lorain Hotel Co. will construct a hotel at Broadway and Eighth St.

**✚Springfield, Ohio**—The contract for the construction of the Shawnee Hotel has been awarded to CALDWELL & BLAKE, LaFayette, Ind. The estimated cost is $300,000.

**Steubenville, Ohio**—Bids will be received about Sept. 20 by the Board of Education for the construction of a school on North St. W. S. McClauslen is Clk.

**Toledo, Ohio**—Bids were received Aug. 27 for the construction of the Mott School from John Proch Co., $104,838; A. Bentley & Son, $105,000; H. J. Spieker Co., $106,950; Walls, Bock, Kuhlman Co., $109,000. George L. McKesson is Dir. of Schools. Noted Aug. 12.

RAPID TRANSIT SYSTEM, NEW YORK, N. Y. (Continued)

| | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 43,000 sq.ft. external walls of mezzanine stairways, including oak finish interior and copper finish exterior | $0.95 | $0.90 | $0.80 | $1.00 | $0.90 | $1.10 | $0.86 |
| 8500 sq.ft. external walls of mezzanine copper finish, including exterior tile finish interior | .85 | .90 | .76 | .80 | .85 | 1.20 | .72 |
| 6100 sq.ft. external walls of mezzanine copper finish exterior, unfinished interior | .80 | .80 | .70 | .80 | .80 | .95 | .72 |
| 26,000 sq.ft. wood partition, including doors, windows, sheating | .56¼ | .60 | .65 | .50 | .60 | .60 | .63 |
| 2000 lin.ft. copper gutters | 1.00 | .70 | 1.02 | 1.00 | .90 | 1.57 | .90 |
| 270 lin.ft. low sliding gates | 8.00 | 9.00 | 7.91 | 10.00 | 9.00 | 12.50 | 8.10 |
| 160 lin.ft. high sliding gates | 12.00 | 13.00 | 14.20 | 12.00 | 13.00 | 16.00 | 14.50 |
| 20 lin.ft. folding gates | 11.00 | 10.00 | 3.95 | 12.00 | 11.00 | 7.30 | 4.25 |
| 15 lin.ft. low swing gates | 10.00 | 8.00 | 8.10 | 12.00 | 11.00 | 12.50 | 8.45 |
| 26 gate controls | 25.00 | 25.00 | 15.25 | 20.00 | 20.00 | 10.50 | 16.00 |
| 66 c.i. gate posts and cross frames | 28.00 | 25.00 | 40.60 | 30.00 | 30.00 | 32.00 | 60.00 |
| 10 floor boxes (additional) | 8.00 | 8.00 | 3.50 | 12.00 | 9.00 | 5.00 | 3.50 |
| 900 lin.ft. 1¼-in. galvanized c.i. pipe for gate ropes | .30 | .25 | .31 | .50 | .30 | .25 | .33 |
| 1000 lin.ft. 1-in. square steel tubing, including c.i. pulleys | .57 | .50 | .47 | .60 | .55 | .60 | .48 |
| 20,000 sq.ft. roofs over mezzanine and pass beyond main stairway roof on train platform | .55 | .62 | .60 | .50 | .60 | .50 | .45 |
| 3000 sq.ft. roofs over existing structure at Woodlawn station, Section 295 | .60 | .35 | .65 | .40 | .40 | .35 | .56 |
| 14,500 lin.ft. 3-in. corrugated galvanized iron leaders | .25 | .25 | .24½ | .25 | .30 | .40 | .25 |
| 870 lin.ft. 3-in. c.i. leaders | .50 | .60 | .37½ | .60 | .60 | .35 | .39 |
| 575 lin.ft. 3-in. w.i. leaders | .55 | .80 | .67½ | .60 | .75 | .90 | .93 |
| 5100 lin.ft. 3½-in. w.i. leaders | .60 | .85 | .77½ | .60 | .80 | 1.05 | 1.08 |
| 1350 lin.ft. 3-in. copper leaders | .50 | .60 | .55 | .60 | .55 | .65 | .44 |
| 2000 lin.ft. smoke flues from stove recesses | .38 | .60 | .30 | .50 | .60 | 1.50 | .45 |
| 450 lin.ft. smoke flue protectors on platforms | 1.00 | 1.20 | 1.00 | 1.00 | 1.00 | 1.00 | .60 |
| 40 ton steel framing shapes, connections | 70.00 | 80.00 | 78.50 | 70.00 | 90.00 | 80.00 | 75.00 |
| 1 ton riveted steel girders, columns and brackets | 125.00 | 80.00 | 80.00 | 100.00 | 100.00 | 75.00 | 75.00 |
| 400 lin.ft. steel ladders | 1.70 | 1.25 | 1.90 | 2.00 | 1.50 | 1.80 | 1.90 |
| 10 sq.ft. steel ladders, platforms | 1.50 | 2.00 | 1.08 | 4.00 | 1.00 | 1.65 | 1.08 |
| 10,000 drill holes existing structure | .25 | .30 | .20 | .25 | .25 | .30 | .35 |
| 150 sq.ft. frames for enameled signs on mezzanine | 1.50 | 1.70 | 2.50 | 2.00 | 1.60 | 1.65 | 2.52 |
| 1 frame and reflect type "A" illuminated sign on brackets attached columns | 100.00 | 50.00 | 50.00 | 60.00 | 60.00 | 27.00 | 30.50 |
| 3100 sq.ft. sign frames on train platform railings | 1.00 | 1.30 | 1.50 | 1.50 | 1.25 | 1.65 | 2.68 |
| 40 sign frames illuminated N. T. I.'s train platform, including seat | 95.00 | 140.00 | 200.00 | 150.00 | 170.00 | 250.00 | 172.00 |
| 8000 sq.ft. enameled sign plates | .30 | .35 | .40 | .25 | .35 | .35 | .30 |
| 4000 vertical in. copper letter for signs | .12 | .15 | .12 | .15 | .15 | .12 | .15 |
| 4 frames and reflectors, type "B," illumined attached to concrete structure | 45.00 | 60.00 | 45.00 | 50.00 | 50.00 | 75.00 | 35.00 |
| 34 sign frames illuminated, N. T. I.'s platform, metal panel | 100.00 | 120.00 | 136.00 | 70.00 | 165.00 | 150.00 | 125.00 |
| 18 sign frames between columns on special canopies | 12.00 | 20.00 | 25.00 | 25.00 | 20.00 | 20.00 | 92.00 |
| 3 marquises over entrance doors Gun Hill road station | 125.00 | 110.00 | 177.00 | 200.00 | 150.00 | 155.00 | 165.00 |
| 8 marquises over entrance doors Woodlawn station | 220.00 | 160.00 | 302.00 | 200.00 | 300.00 | 210.00 | 293.00 |
| 13,500 sq.ft. non-slip treads without wood block and anchor | .70 | .90 | .45 | .80 | .90 | .70 | .65 |
| 1600 sq.ft. non-slip treads with wood block and anchor | .80 | 1.00 | .62 | .85 | .95 | .85 | .70 |
| 2200 sq.ft. stamped sheet metal in booths on mezzanine | .14 | .13 | .15 | .15 | .14 | .20 | .11 |
| 4000 sq.ft. metal lath without steel furring | .09 | .12 | .10 | .15 | .10 | .06 | .10 |
| 1900 sq.ft. metal lath with steel furring | .16 | .18 | .20 | .15 | .20 | .13 | .19 |
| 100 sq.ft. special wire forms | .25 | .20 | .10 | .25 | .40 | .60 | .20 |
| 11 type "B" ticket booth | 440.00 | 400.00 | 600.00 | 400.00 | 400.00 | 430.00 | 467.00 |
| 11 type "D" ticket booth | 550.00 | 500.00 | 725.00 | 400.00 | 500.00 | 650.00 | 725.00 |
| 3 type "E" ticket booth | 525.00 | 500.00 | 720.00 | 400.00 | 600.00 | 525.00 | 625.00 |
| 700 lin.ft. oak seats in waiting rooms | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.45 | 3.00 |
| 77 oak doors, type "GG" for toilet stalls | 10.00 | 12.00 | 10.00 | 12.00 | 12.00 | 8.00 | 9.00 |
| 750 sq.ft. windows in masonry portable wall fixed transom sash | .83 | 1.20 | 1.25 | 1.00 | 1.50 | .75 | 1.25 |
| 735 sq.ft. windows in masonry exterior d.h. sash | 1.00 | 2.00 | 1.50 | 1.00 | 1.50 | .75 | 1.56 |
| 3800 sq.ft. windows in masonry exterior wall casement sash | 1.00 | 1.50 | 1.20 | 1.00 | 1.10 | .75 | 1.11 |
| 9000 sq.ft. windows in masonry portable exterior wall drop sash | 1.00 | 1.10 | 1.40 | 1.00 | 1.10 | .75 | 1.05 |
| 100 sq.ft. street in masonry exterior wall hinged sash | 1.00 | 1.80 | 2.00 | 1.00 | 1.10 | .75 | .96 |
| 32 sewer connections, Section 257 | 125.00 | 140.00 | 95.00 | 100.00 | 125.00 | 95.00 | 100.00 |
| 33 water connections, Section 257 | 80.00 | 110.00 | 60.00 | 100.00 | 100.00 | 60.00 | 90.00 |
| Concrete work, 161st street station, Section 295 (lump sum) | 10,455.00 | 13,500.00 | 22,744.00 | 14,100.00 | 13,500.00 | 19,969.00 | 24,800.00 |
| Concrete work, Gun Hill road, Section 295 (lump sum) | 4,037.00 | 7,500.00 | 11,000.00 | 13,125.00 | 4,200.00 | 9,515.00 | 26,000.00 |
| Concrete work Bedford Park boulevard, Section 295 (lump sum) | 4,144.00 | 4,500.00 | 8,625.00 | 9,000.00 | 8,300.00 | 4,811.00 | 9,600.00 |
| Brick chimney, Woodlawn station, Section 295 (lump sum) | 70.00 | 200.00 | 150.00 | 300.00 | 250.00 | 166.00 | 217.06 |
| Copper covered ceiling, Woodlawn station, Section 195 (lump sum) | 125.00 | 400.00 | 1,210.00 | 2,000.00 | 350.00 | 378.00 | 540.00 |
| Enclosed ramp East 180th street station, Section 295 (lump sum) | 5,185.00 | 6,000.00 | 19,226.00 | 12,000.00 | 6,000.00 | 7,914.00 | 6,886.00 |
| Extended totals | $860,636 | $908,684 | $944,347 | $960,373 | $971,387 | $972,789 | $1,414,305 |

**St. Joseph, Mich.**—The citizens voted to bond the city for the construction of a school to cost $100,000.

**Chicago, Ill.**—Plans have been prepared by Graham, Burnham & Co., Arch., for the construction of a 16-story office building at Wabash and Jackson Blvd., for the W. W. Kimbal Piano Co. The estimated cost is $1,250,000.

**Ames, Iowa**—The contract will soon be awarded for the construction of a dormitory and science hall at the Iowa State College. The estimated cost is $125,000.

**Davenport, Iowa**—Plans are being prepared for the construction of a four-story, 50x110-ft. addition to St. Ambrose College. The estimated cost is $100,000.

**Harlan, Iowa**—An election will be held Sept. 3 to vote on the question of issuing $120,000 in bonds, the proceeds of which will be used for the construction of schools.

**New Hampton, Iowa**—Plans are being considered for the construction of a hospital for the Sisters of the Holy Ghost. Estimated cost, $75,000.

**Sioux City, Iowa**—Plans are being prepared by Beuttler & Arnold, Security Bank Bldg., for the construction of a Masonic building at Douglas St. The estimated cost is $100,000. D. M. Brownlee is Chn. of Bldg. Com.

**Duluth, Minn.**—Plans are being prepared by F. G. German, Arch., for the construction of a church for the Pilgrim Congregational Church. The estimated cost is $100,000.

**Minneapolis, Minn.**—Plans are being prepared by Hewett & Brown, Arch., for the construction of a school for the Northorp Collegiate School. The estimated cost is $150,000.

**Virginia, Minn.**—Preliminary plans are being prepared by C. E. Nystrom, Arch., for the construction of a Trade School for the City of Virginia. Estimated cost, $100,000.

**✚Omaha, Neb.**—The contract for the construction of a gymnasium for Creighton University, Burt and 24th St., Omaha, has been awarded to the SELDON-ERECK CONSTRUCTION CO., at $117,000.

**Havre, Mont.**—It is reported that plans are being prepared for the construction of a Masonic Temple. The estimated cost is $100,000. Frank Bossmont, Havre, and Lincoln Halve, Helena, are Archs.

**St. Louis, Mo.**—W. J. Holbrook, 812 Olive St., is interested in a project to construct a $500,000 hotel at 12th and Locust St.

**St. Louis, Mo.**—The Glennon Club plans the construction of a $100,000 clubhouse on Laclede Rd.

**✚Beaumont, Tex.**—(Official)—The contract for the construction of an addition to the South Park School has been awarded to the GENERAL CONSTRUCTION CO., Beaumont, at $38,000. Noted Aug. 12.

**Dallas, Tex.**—Plans are being prepared by Stone & Webster, Engr., Commonwealth Bldg., for the construction of a Union Interurban Passenger Station. The estimated cost is $700,000.

**El Paso, Tex.**—Plans are being prepared for the construction of a four-story building on North Stanton St. for J. S. Lanier. The estimated cost is $72,000.

**San Angelo, Tex.**—(Official)—Bids will be received until Sept. 6 by the San Angelo School Board for the construction of a high school. The estimated cost is $65,000. Noted July 29 and Aug. 19.

**✚San Antonio, Tex.**—(Official)—The contract for the construction of a reinforced-concrete hospital to be known as the Robert B. Green Memorial has been awarded to the H. N. JONES CONSTRUCTION CO., Moore Bldg., San Antonio, at $245,000. Noted July 22.

**Denver, Colo.**—Plans have been prepared by Fisher & Fisher, Arch., for the construction of a five-story hotel on the two blocks bounded by 10th and 11th Ave and Lincoln and Grant St. The estimated cost is $1,500,000.

**Denver, Colo.**—Plans are being prepared for the construction of a national sanitarium. The estimated cost is $250,000. L. F. Bartols, Denver, is interested.

**✚Florence, Ariz.**—The contract for the construction of the Florence Union High School has been awarded to ALBRECTH ANDERSON, Phoenix, at $43,865. Other bids were: T. L. Edens, Phoenix, $44,075; Sparks & Hale, San Diego, $44,350; Lutguding & Egan, Phoenix, $44,478; Hughes & Toncray, Phoenix, $44,648; J. A. Tucker, Phoenix, $44,886; Clinton Campbell, Phoenix, $46,750. Noted June 3 and July 8.

## RAPID TRANSIT SYSTEM—NEW YORK, N. Y.

### Section No. 2, Route Nos. 36 and 37

Bids were received Aug. 4 by the Public Service Commission for the construction of the finish station on Section No. 2, Route Nos. 36 and 37, of the Astoria Elevated R.R., from: (A) Charles Meads & Co., 38 Park Row, New York, (B) Snare & Triest Co., 233 Broadway, New York, (C) Simon Russek, Inc., 261 Broadway, New York. The item bids were as follows:

| | A | B | C |
|---|---|---|---|
| 2300 lin.ft. stairways, wood, street to mezzanine | $1.60 | $1.00 | $1.40 |
| 3760 lin.ft. stairways, wood, mezzanine to platform | 1.60 | 1.00 | 1.40 |
| 415 sq.ft. stair landings, wood, straight (street and mezzanine) | 1.60 | 1.20 | 1.40 |
| 460 sq.ft. stair landings, wood, offset (street and mezzanine) | 1.60 | 1.20 | 1.40 |
| 740 lin.ft. stair landings, wood, mezzanine to platform | 1.60 | 1.20 | 1.40 |
| 10 ton stair supports, columns, hangers, etc | 90.00 | 90.00 | 92.00 |
| 430 sq.ft. street landings, concrete | 1.00 | .90 | .40 |
| 2200 cu.yd. columns foundations | 6.00 | 4.00 | 13.20 |
| 30 brick or concrete manholes | .50 | .55 | .55 |
| 6 cu.yd. rock excavation | 10.00 | 10.00 | 10.00 |
| 2500 lin.ft. hand rails | .50 | .55 | .70 |
| 3200 sq.ft. canopies, stairs, street to mezzanine | .70 | .70 | .85 |
| 13 canopies, street landings | 40.00 | 80.00 | 53.00 |
| 36,800 sq.ft. canopies, train platforms (side) | .44 | .40 | .38 |
| 18,200 sq.ft. canopies, train platforms (island) | .44 | .35 | .38 |
| 840 lin.ft. railing, type "A" | 3.00 | 4.00 | 4.90 |
| 570 sq.ft. railing, type "B" | 1.00 | 1.20 | 1.20 |
| 120 lin.ft. railing, type "C" | 3.00 | 3.50 | 5.70 |
| 10 lin.ft. railing, type "D" | 3.00 | 4.00 | 4.90 |
| 1100 lin.ft. railing, type "E" | 3.60 | 4.70 | 4.00 |
| 50 lin.ft. railing, type "F" | 3.60 | 4.50 | 4.00 |
| 2910 sq.ft. railing, type "G" | .80 | .90 | .95 |
| 2340 lin.ft. railing, type "K" | 3.00 | 4.50 | 3.90 |
| 2 additional posts | 15.00 | 20.00 | 4.00 |
| 140 lin.ft. pipe railing | 1.00 | 1.20 | 1.00 |
| 24 metal screens for stove recess | 10.00 | 12.00 | 12.00 |
| 2450 lin.ft. wind screen with drop sash on train platform | 5.00 | 5.00 | 7.00 |
| 185 standards on railings on train platform | 16.00 | 23.00 | 7.60 |
| 50 free standing standards on island train platform | 25.00 | 34.00 | 24.00 |
| 29,200 sq.ft. wood floors on train platforms | .28 | .20 | .28 |
| 5340 sq.ft. 8-in. concrete water proofing and wood | .70 | .65 | .60 |
| 3730 sq.ft. 11½-in. concrete water proofing and wood | .80 | .75 | .70 |
| 1060 lin.ft. platform edge supported on steel angles | .80 | .90 | .87 |
| 23,200 sq.ft. asphalt floor, including wood floor | .45 | .32 | .35 |
| 2450 sq.ft. 8-in. concrete slab, 3-in. finish | .60 | .50 | .60 |
| 1500 sq.ft. cement wainscot and base | .20 | .22 | .12 |
| 12,630 sq.ft. connecting track floor over mezzanine water proofing rods, etc | .60 | .45 | .50 |
| 300 sq.ft. flooring for passageways | .50 | .25 | .20 |
| 125 ferriles for mezzanine roof | 3.00 | 2.40 | 3.00 |
| 13,700 sq.ft. external walls of mezzanine stairway enclosure coping exterior interior wood | 1.20 | .95 | .95 |
| 600 sq.ft. external walls of mezzanie coping exterior tile interior | 1.40 | .90 | .90 |
| 18,160 sq.ft. wood partition walls including doors, windows, etc | .70 | .60 | .75 |
| 1750 lin.ft. copper cutters in place | 1.00 | .90 | .90 |
| 55 lin.ft. low sliding gates | 10.00 | 10.00 | 11.00 |
| 110 lin.ft. high sliding gates | 12.00 | 14.00 | 14.50 |
| 12 gate controls | 20.00 | 25.00 | 5.00 |
| 24 c.i. gate posts and cross frame | 40.00 | 30.00 | 42.00 |
| 715 lin. ft. 1-in. sq. steel tubing for gate ropes, etc | .50 | .60 | 1.00 |
| 9570 sq.ft. roof over mezzanine and passway beyond main structure | .60 | .60 | 60 |
| 4840 lin.ft. 3-in. corrugated galvanized iron leaders | .30 | .30 | .30 |
| 10 lin.ft. 3-in. c.i. leaders | 1.00 | .60 | .60 |
| 540 lin.ft. 3-in. w.i. leaders | .50 | .75 | .70 |
| 540 lin.ft. 3½-in. w.i. leaders | .60 | .85 | .80 |
| 20 lin.ft. 3-in. copper leaders | 1.00 | .60 | .70 |
| 930 lin.ft. smoke flues from stove recesses | .40 | .60 | .55 |
| 180 lin.ft. smoke flue protectors on platforms | 1.00 | 1.20 | 2.50 |
| 1880 lb. c.i. fenders for structural columns | .10 | .05 | .05 |
| 41 ton steel framing and shapes | 70.00 | 70.00 | 75.00 |
| 80 ton riveted steel girders, columing and bracing | 80.00 | 70.00 | 80.00 |
| 25 lin.ft. steel leaders | 2.00 | 2.00 | 2.50 |
| 10 sq.ft. steel leaders, platforms | 2.00 | 1.00 | 1.20 |
| 1050 drilling holes in steel (existing structure) | .40 | .30 | .40 |
| 185 sq.ft. frames for enlarged sign in mezzanine | 1.60 | 1.60 | 2.30 |
| 3 frames and repeators for illuminated signs on brackets attached to columns | 40.00 | 45.00 | 30.00 |
| 660 sq.ft. sign frames on train platform railing | 70 | 1.20 | 1.15 |
| 24 sign frames illuminated N.T.'s on island platforms, seat | 60.00 | 170.00 | 130.00 |
| 1700 sq.ft. enameled sign plates | .30 | .40 | .25 |
| 5 sign frames for illuminated N.T.'s on island plumbing metal | 40.00 | 170.00 | 70.00 |
| 3500 sq.ft. non-slid treads without wood blocks and anchors | .80 | .95 | .70 |
| 400 sq.ft. non-slid treads with wood blocks and anchors | 1.00 | 1.00 | .80 |
| 980 sq.ft. stamper sheet metal in booths on mezzanine | .20 | .15 | .20 |
| 50 sq.ft. metal lath without steel furring | .40 | .14 | .10 |
| 8 type "B" ticket booth | 400.00 | 450.00 | 400.00 |
| 2 type "B-B" ticket booth | 700.00 | 800.00 | 700.00 |
| 240 lin.ft. oak seats in waiting rooms | 4.00 | 3.00 | 3.50 |
| 24 type "G-G" oak doors toilets | 12.00 | 13.00 | 12.00 |
| 95 hardware doors to toilet rooms, waiting rooms and closets | 12.00 | 22.00 | 19.00 |
| 55 double hung sash | 3.00 | 3.00 | 3.00 |
| 440 casement sash in mezzanines | 4.00 | 5.00 | 4.00 |
| 44 casement in toilet and rooms and inclosure between stations | 4.00 | 4.00 | 3.80 |
| 470 drop sash | 2.00 | 1.20 | 1.40 |
| 140 hinged sash (top or bottom) | 2.00 | 2.80 | 1.80 |
| 24 for toilet stall doors, type "G.G." | 10.00 | 12.00 | 10.00 |
| 37 doors p. board and s. board boxes | 2.00 | 2.00 | 2.00 |
| 4 sliding doors to transformer closets | 10.00 | 7.50 | 6.00 |
| 16 vent doors | 3.00 | 2.50 | 2.00 |
| 24 additional hardware, door checks | 6.00 | 3.50 | 3.50 |
| 70 door stops | 2.00 | 1.50 | 1.50 |
| 20 rubber covered chains | 2.00 | 1.20 | 1.50 |
| 26 push plates | 2.00 | 2.00 | 2.00 |
| 26 door pulls | 2.00 | 2.50 | 2.50 |
| 53 kick plates | 8.00 | 6.00 | 6.00 |
| 53 push bars | 6.00 | 4.50 | 4.30 |
| 44 casement sash adjuster for single sash | 4.00 | 2.50 | 2.30 |
| 4 casement sash adjuster for gang of two | 10.00 | 8.50 | 8.50 |
| 6 casement sash adjuster for gang of three | 12.00 | 11.00 | 11.00 |
| 8 casement sash adjuster for gang of four | 16.00 | 13.50 | 13.00 |
| 40 casement sash adjuster for gang of five | 16.00 | 16.00 | 16.00 |
| 35 casement sash adjuster for gang of six | 20.00 | 16.00 | 16.00 |
| 16 sq.yd. plaster coat on masonry surface and for second coat on metal lath | 1.00 | 1.50 | .70 |
| 30 sq.yd. first or scratch coat on metal lath | 1.00 | 1.50 | .50 |
| 470 cu.ft. common brick | .80 | .50 | .50 |
| 100 cu.ft. hollow terra cotta tile | .80 | .50 | .45 |
| 24 for connecting stove recesses including all appurtenances except metal screens in place | 30.00 | 35.00 | 4.50 |
| 2150 sq.ft. ¾ in. galvanized wainscot and trim on walls | 1.20 | 1.50 | 1.30 |
| 280 sq.ft. ¾-in. galvanized chamber partitions | 1.40 | 1.60 | 1.60 |
| 40 sq.ft. ¾-in. shelves | 2.00 | 1.60 | 1.60 |
| 600 sq.ft. ¾-in. stall partitions | 1.60 | 1.70 | 1.60 |
| 100 sq.ft. 1-in. floor slabs | 2.00 | 2.70 | 2.50 |
| 435 lin.ft. curved corners and angles of glass | 1.40 | 1.60 | 2.50 |
| 20 sq.ft. soap stone wainscoting and trim on wall | 1.00 | 1.50 | 1.00 |
| 300 sq.ft. soapstone pipe chamber partitions | 1.00 | 1.30 | .90 |
| 75 sq.ft. soapstone shelves | 1.50 | 1.40 | 1.00 |
| 75 sq.ft. soapstone stall partitions | 1.50 | 1.40 | 1.00 |
| 20 sq.ft. soapstone floor slabs | 1.00 | 1.50 | 1.10 |
| 50 lin.ft. curved corners and angles of soapstone | 1.00 | 1.20 | 1.00 |
| 24,050 cu.ft. portable enclosures between stations | .18 | .22 | .23 |
| 20 wooden ladders | 6.00 | 2.50 | 11.00 |
| 28 water closet bowls | 45.00 | 60.00 | 47.00 |
| 24 lavatories in stations | 30.00 | 44.00 | 29.00 |
| 3 lavatories in enclosure between station | 30.00 | 40.00 | 27.00 |
| 28 urinals | 75.00 | 85.00 | 80.00 |
| 13 slop sink | 60.00 | 64.00 | 62.00 |
| Rough plumbing work complete for all stations (lump sum) | 6,400.00 | 10,600.00 | 7,000.00 |
| Rough plumbing work complete for all enclosure between stations (lump sum) | 1,000.00 | 700.00 | 1,240.00 |
| 90 posts (in toilet rooms) | 6.00 | 15.00 | 9.80 |
| 180 lin.ft. top rails (in toilet rooms) | 1.00 | 1.20 | 1.00 |
| 8 wall flanges (in toilet rooms) | 1.00 | 1.50 | 2.00 |
| 12 register faces and frames in pipe chamber part | 10.00 | 12.00 | 3.50 |
| 12 c.i. vent louvres in walls or ports, etc | 10.00 | 18.00 | 4.50 |
| 3700 lb. glass and soapstone steel support | .10 | .08 | .07 |
| 30 coat and hat hooks in toilet rooms | 2.00 | 1.50 | .50 |
| 24,275 lin.ft. ¾-in. electric conduits | .12 | .14 | .14 |
| 6000 lin.ft. 1-in. electric conduits | .15 | .17 | .17 |
| 2400 lin.ft. 1¼-in. electric conduits | .20 | .22 | .21 |
| 250 lin.ft. 2-in. electric conduits | .30 | .30 | .30 |
| 200 lin.ft. 2½-in. electric conduits | .40 | .40 | .43 |
| 100 lin.ft. 3-in. electric conduits | .60 | .55 | .60 |
| 750 lin.ft. ¾-in. flexible conduit | .16 | .20 | .20 |
| 6 placing ferrules in walls other than masonry walls | 5.00 | 1.00 | 1.00 |
| 1575 c.i. outlet boxes | 1.00 | 1.20 | 1.00 |
| 25 c.i. pull boxes, 6 in. x 6 in. x 6 in | 4.00 | 3.00 | 3.10 |
| 6 c.i. pull boxes, 12 in. x 12 in. x 6 in | 8.00 | 7.50 | 8.00 |
| 6 c.i. pull boxes, 18 in. x 12 in. x 6 in | 10.00 | 9.50 | 10.00 |
| 6 13 in. x 20 in. x 4 in. boxes hinged covers and locks | 20.00 | 14.00 | 15.00 |
| 12 c.i. heater boxes | 15.00 | 14.00 | 15.00 |
| 16 steel panel boxes, 25 in. x 60 in. x 5¼ in. | 20.00 | 16.00 | 17.00 |
| 6 steel panel boxes, 25 in. x 48 in. x 5¼ in. | 20.00 | 14.00 | 15.00 |
| 12 steel panel boxes, 25 in. x 36 in. x 5¼ in. | 20.00 | 12.00 | 14.00 |
| 3 steel switch boxes | 20.00 | 15.00 | 15.00 |
| 17,700 sq.ft. painting two coat work on plaster and cement surface | .02 | .02 | .02 |
| Painting structure of existing structure as required by section 291 (lump sum) | 1,500.00 | 3,200.00 | 700.00 |
| 6900 sq.ft. tile 3 in. x 6 in. straight | .40 | .60 | .50 |
| 400 sq.ft. tile 1-in. radius | .80 | 1.20 | 1.00 |
| 700 sq.ft. tile 2½ in. radius | 1.00 | 1.20 | 1.20 |
| 26 sewer and water connections, section 257 sewer | 80.00 | 200.00 | 80.00 |
| 10 sewer and water connections, section 257 water (lump sum) | 80.00 | 100.00 | 80.00 |
| Wires, cables, poles, trees, section 13 and 295 | 7,000.00 | 10,500.00 | 3,500.00 |
| 44,160 cu.ft. recreation building at Ditmars Ave. Station, section 295 | .12½ | .20 | .15 |
| Extended totals | $268,102 | $274,096 | $285,249 |

## EAST SIDE SEWER—TOPEKA, KAN.

Bids were received July 22 for the construction of the East Side sewer, from, (A) Engineer's Estimate, (B) T. M. Torson, (C) JAMES A. PRINGLE (awarded contract), (D) Commercial Construction Co. The item bids were as follows:

| | A | B | C | D |
|---|---|---|---|---|
| 62,770 ft. 8-in. vitrified clay pipe | $0.65 | $0.57 | $0.60 | $0.58 |
| 22,543 ft. 10-in. vitrified clay pipe | .76 | .64 | .75 | .75 |
| 10,966 ft. 12-in. vitrified clay pipe | .95 | .75 | .87 | .90 |
| 4682 ft. 15-in. vitrified clay pipe | 1.52 | 1.06 | 1.46 | 1.50 |
| 3988 ft. 18-in. vitrified clay pipe | 1.67 | 1.38 | 2.00 | 2.00 |
| 2947 ft. 21-in. vitrified clay pipe | 2.44 | 1.55 | 2.46 | 2.50 |
| 2992 ft. 24-in. vitrified clay pipe | 3.96 | 2.50 | 3.90 | 4.00 |
| 281 ft. 27-in. vitrified clay pipe | 5.50 | 4.60 | 4.68 | 5.00 |
| 36 ft. 20-in. c.i. pipe | 5.00 | 4.00 | 5.00 | 4.00 |
| 33,100 ft. 1-in. galvanized pipe | .20 | .20 | .20 | .22½ |
| 98 flush tanks | 65.00 | 58.00 | 65.00 | 75.00 |
| 248 manholes | 45.00 | 35.00 | 45.00 | 45.00 |
| 200 cu.yd. concrete | 7.00 | 8.00 | 8.00 | 8.00 |
| 25 M b.m. sheeting | 30.00 | 30.00 | 30.00 | 30.00 |
| Extra excavation | .50 | .50 | .50 | .50 |
| Extended totals | $129,191 | $105,715 | $125,834 | $127,374 |